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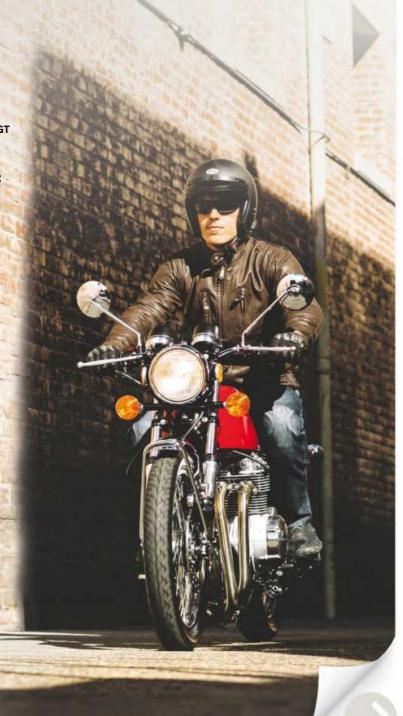
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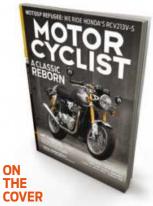
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Triumph's latest and perhaps most awesomely beautiful Bonneville arrives with higher specification and more displacement. We can't wait to actually ride one!

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### MARC COOL

### NO SMALL TASK

magine that you're 19 or 20 and your father, having seen you drive your own million-mile beater without too much drama, absent any warning hands you the keys to his beloved Daytona Yellow Corvette. When your head clears and you can manage speech, you offer a weak, "Thanks, Dad," and begin wondering if you'll be able to get it down the driveway in one piece. You feel the weight of the responsibility upon you; his trust must not be broken. I can imagine Triumph's engineers feeling a little like this—tossed the keys to remaking the firm's most successful modern motorcycle, a nameplate that simultaneously embodies the best of Triumph's glory days and, if done right, ensures its future. The Bonneville.

I chatted briefly with Triumph's Chief Engineer Stuart Wood during the press preview at the factory (see the whole story starting on page 34). For an engineer, he's surprisingly "on about" the Bonnie's styling. "Well, it's better in every way, isn't it?" Of course he would say that... "When you look at the new Bonnevilles you can see that the lines are more pure, much more authentic and faithful to the original bikes. When you see them finished, they look right. It's obvious they look right, but the amount of effort to get there was massive."

Part of the challenge was to package the bike in a way that kept styling pure but also allowed for modern conveniences like ABS and ride by wire, as well as sufficient cooling to permit tuning that meets the latest Euro 4 emissions regulations. With

"The new Bonnevilles... The lines are more pure, much more authentic and faithful to the original bikes."

a roadster, there's almost no place to hide the required hardware. And it's especially difficult if you're trying to make the new bike look more "airy" than the old one.

"Everybody wanted that nice, straight line in the exhaust [from the head to the muffler], which you struggle to package with a 650cc engine, let alone a 1200," Wood says. "We have a profile similar to the old bikes but have, rather cleverly, managed to package in all the modern technology. We're trying to make bikes that look good," within the confines of the packaging, which means the Bonneville can't get very large. It has to feel compact, it has to have a low seat, and it has to feel manageable. "Yet we were aware of the expectations in the marketplace, especially in America where a 900cc motorcycle is entry level."

Wood brought up something interesting in our conversation I'd never considered. Triumph knew that performance was important to Bonneville customers, but it had to be a certain kind of performance. "With the new engine and our ride-by-wire system we can really make it easy to use, with an emphasis on torque," he says, "but still with good performance. Some manufacturers place such an emphasis on heritage that they're willing to sacrifice performance." Or never move it forward at all, which is essentially Wood's point. Perhaps it helps that the original Bonneville's raison d'être was performance. It's in no way inauthentic if it's a reasonably quick motorcycle.

I asked Wood if the Bonnevilles were being planned as a long-life product, since the current bikes have been around for 15 seasons. "I would like to think so, yes," he said then added, "After all, this is a solid part of our range that doesn't demand frequent updates." Indeed, for bikes that are often customized, rapid year-on-year changes in design are a hindrance; if the aftermarket has to play catch-up, its key players will go some-

> where else. Triumph knows this all too well and so is loathe to upset the balance.

Wood also hinted at the future of the line. "I think we have opportunities to offer more from the Bonneville range," he said. "There will be more exciting bikes." And

there he stopped, aware that a room full of Triumph staff and journalists would pounce on any mention of models beyond the 2016s.

At that moment, I got the distinct sense that Wood and his guys had a nice spin in the yellow Corvette, were happy to have it safely back in the garage, confidence bolstered, experiences logged, ready for the next assignment.





ONNECT





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awasaki's Ninja ZX-10R was last updated in 2011 and ever since has been a potent liter-class supersport competitor. However, the past couple of years have seen a massive surge in capability and sophistication in the class, from the immense horsepower of Aprilia's RSV4 and BMW's S1000RR to the featherweight frameless Ducati 1299 Panigale and NASA-level Yamaha R1 technology. Good as it was, the ZX-10R fell behind by standing still. Kawasaki is

radically upping its game in 2016 with a new version of the ZX-10R superbike. which borrows heavily from the company's successful World Superbike efforts.

### **ENGINE**

The powerplant keeps its 998cc displacement. 76 x 55mm bore and stroke measurements, and 13:1 compression ratio, but there are heavy updates across the board. The new ZX-10R borrows the "computer-controlled electronic throttle

valves" (ride by wire) from Kawasaki's H2 hyperbike, where RBW debuted earlier this year. A lighter crankshaft means the engine should be quicker to rev and have less reciprocating mass at speed. Pistons are also lighter, by 5 grams each, thanks to 1.5mm shorter skirts.

The cylinder heads have been updated too, with revised ports (the exhaust port is polished to match the intake from last year) that offer a straighter path for intake and exhaust charges to create better

### NEW FOR '16: YAMAHA R1S

### **Fewer Elements. Less Loot**

Priced at \$14,990, the new-for-2016 R1S undercuts its standard R1 sibling by \$2,000 yet doesn't leave much out. For example, the R1's full electronics suite remains in the R1S, including adjustable traction control, ABS, ride-bywire throttle with ride modes, launch control, slide control, and an Inertial Measurement Unit that makes it all possible.



flow. Helping the gases stream are 1mm larger exhaust valves (now 25.5mm) and a slightly different combustion chamber shape, as well as cams that provide more valve overlap, all designed to create more top-end power. A new titanium exhaust is thinner, lighter, and offers more volume to reduce noise.

### **ELECTRONICS**

Where the previous ZX-10R's traction control was slightly behind the competition in terms of hardware, it typically worked guite well and left reviewers impressed. However, the 2016 model steps firmly into the state-of-the-art realm with a Bosch Inertial Measurement Unit that calculates every movement of the machine, from lean angle to pitch and forward/rearward acceleration. The IMU informs a new, 32-bit ECU with wheel speed, brake pressure, throttle position, engine rpm, and throttleopening sensor data in order to activate the ZX-10R's traction control, ABS, and all-new engine braking, launch control, and "cornering-management function" systems. The Sport Kawasaki Traction Control (S-KTRC) system now has five settings, up from three on the 2015 bike.

In the list of expanding features there are now three power modes, rather than two. Full power means getting all of the yet-undisclosed thrust on tap, while Middle offers 80 percent, and Low dishes out 60 percent of maximum power. And, yes, at



long last, a quickshifter! This is an upshiftonly system, however. You're on your own for downshifts—though the slipper clutch (now 130 grams lighter) is there to help.

### **CHASSIS**

The aluminum twin-spar frame remains the same in basic layout but has also undergone serious updates. The steering head has effectively been moved 7.5mm closer to the rider for more front weight bias, and the swingarm has been lengthened 15.8mm (0.6 inch). That, paired with a 32.9-inch seat height (0.9 inch taller than before), aims to give the ZX-10R quicker handling. For stability, there is now a longer wheelbase, too, up nearly 0.5 inch from the previous model to 56.7 inches.

Showa's "Balance Free Fork" and Rear Cushion (shock) suspend the new ZX-10R and represent a big step forward in technology. Independent damping circuits for compression and rebound, along with nitrogen-charged chambers and valves placed outside the fork legs, allow for more precise damping and better suspension feel, so says Kawasaki and Showa. The linkage ratios for the shock have also been changed, aimed to provide a wider range of adjustment and geared specifically at track riding.

Front brakes see a massive upgrade as well, with a radial-pull lever and braidedsteel lines feeding pressure to Brembo M50 calipers squeezing two 330mm rotors (basically the 1299 Panigale system). The new brakes are undeniably drool-worthy then again the old Tokico system with 310mm discs was quite good.

### **APPEARANCE**

At first glance the 2016 ZX-10R looks similar to the outgoing bike, but keen eyes will have spotted a slew of updates. A larger windshield is said to offer increased



wind protection while being more stable. thanks to being joined with the fairing fully (unlike the previous "floating" screen). The headlights are new, now slightly smaller, and the same goes for the mirrors. A new LED taillight resides just above a new, more modular license plate holder that can be removed easily for track use. The passenger seat has been described as "sportier," which we take to mean less of a priority—fair enough, for a machine that is so clearly aimed at use on the track. There are a few small updates to the dash as well. The bar-type tachometer stretching across the top of the cockpit is familiar but now sits just above a multi-window LCD adjustable for Standard or Race mode.

### **OUR TAKE**

This represents a major step forward for Kawasaki's flagship superbike. The hardware alone, in the gas-charged Showa suspension components and Brembo brakes, is a notable upgrade for a Kawasaki. Likewise, the additional capability of IMU componentry and software look to make the ZX-10R a serious threat in the literbike class, where it had admittedly fallen behind but not by very much. We have high hopes for this new ZX-10R, and if it's priced aggressively enough it could make a serious splash in the superbike pond.

The bodywork is the same, as is the riding position and basic suspension calibration, though the S uses a slightly different fork and shock from KYB.

Yamaha saved money in the details. The guickshifter becomes an optional upgrade, and the R1S uses an aluminum oil pan, engine covers, and wheels, where those components are magnesium on the R1 and R1M. Also, the S model's exhaust is stainless steel and the connecting rods are plain-old steel, where on the standard bike and R1M they are titanium. All told, Yamaha claims the R1S is 9 pounds heavier than the base R1, and the heavier engine internals mean a rev ceiling of 12,650 (down from 14.500 rpm).

Availability is set for February, in two new colorways: the same matte gray option as the R1 has for 2016 and an Intensity White/Raven/Rapid Red scheme shown here.

-Marc Cook







purred by the welcomed reintroduction of the company's Eldorado, and surely with one eye on the resounding success of the Star Bolt, it seems Guzzi wants to take a stab at the urban cruiser market with this vintagestyled-cruiser based on the V7 platform. Although this test mule is clearly dripping with experimental bits, sharp eyes will have caught some particularly telling pieces. Parts of the engine are slightly different than current V7 models, such as the larger valve covers and what appears to be a vaguely updated oil pan. The lower section of the V7's double-cradle frame is unfinished, probably for testing footpeg

position and possibly motor mounts.

This V7 is low in the back, too, with a chopped rear fender and clearly temporary mounts for the license plate. Up front there's a wide, flat handlebar directing a huge Continental ContiMilestone cruiser tire mounted to the front rim. The somewhat small and swoopy fuel tank is also a departure from the current V7 line and would fit perfectly on a V7 Audace model. Considering the already reasonable pricing of Moto Guzzi's V7 lineup (well under \$10,000) a more aggressive cruiser version seems well placed to take on the likes of the Bolt, as well as Harley-Davidson's 883 Iron and SuperLow.



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### YAMAHA DT-07

### MC's Pick of the Litter at AIME 2015

Bathed in the now-familiar Yamaha 60th anniversary livery, this FZ-07-based flat track concept bike caught our eye in Florida. Built by Jeff Palhegyi and Yamaha USA's race shop, the DT-07 represents, "Yamaha's interpretation of what a dirt tracker designed from the ground up in 2015 should look like." With a purpose-built frame, a fork from a previous-generation R6, and one-piece bodywork that screams flat-track minimalism, we tend to agree.



WARNING: Smokeless tobacco is addictive.

### RACING THE GODS

aul Ritter is a strong man with an iron will who has written a book called Racing The Gods. I wanted to read Racing The Gods because I thought it was about the early years of superbike racing. Mr. Ritter has really written two books in one. The first book deals with his Ducati roadracing career in the 1970s. That's a good book. It has all sorts of insider-only information that we, as spectators, could never know. I can relate to it because I was at many of his races in California. I like make-a-joke, bolt-A-into-hole-B motorcycle stories that do not tax my shallow, superficial worldview.

The second book is more than a good book. It's a book that burns down your shallow, superficial world. Nothing about it is easy. Nothing about it is fun. It is a brutally real account of Ritter's motorcycle crash and subsequent recovery from his injuries. Those injuries left Ritter paralyzed from the chest down. Any humor is necessarily gallows humor. I wanted rah-rah, knee-down hijinks and was unprepared for the raw honesty of Racing The Gods.

The second book isn't all gloom and doom. Ritter shows us that life in the chair is not the end but a complicated beginning with all known reference points relocated. It's truly heroic to see his transformation from hospital bed to fully functional human out and about in society.

"After reading Racing The Gods I won't take any more from him; he bled enough on those pages."

Ritter is an engineer and approaches the struggle to adapt to life in the chair like an engineer: Identify the problem, come up with a solution, and implement the change. It's the same method he used to become one of the best motorcycle racers in the US. Chapter after chapter, Ritter hammers away at the hard facts of living with paralysis. You'll learn how to eat, how to love, and how to overcome a 2-inch bump in the sidewalk.

I was supposed to interview Ritter for this story, to try and rob that private piece of soul that Ritter did not lay bare in the book. After reading Racing The Gods I won't take any more from him; he bled enough on those pages. Ritter's clean, confident prose hurries you along. I read the book in one sitting, finally putting it down at 3:45 a.m. Afterward I sat and stared at the cover wondering if I could ever be such a man.

I can't conceive it. Racing The Gods has shaken my confidence. That tiny cord running through our spinal column is so very fragile. Every day we ride our motorcycles willfully ignoring the risk or maybe just ignorant of it. I'm not a brave man: I ride assuming it won't happen to me, but the wheelchair or the morgue has claimed many motorcycle riders, and only pure, dumb luck has kept me out of both.

Ritter was injured on a racetrack, but public streets are no safe haven. Racing The Gods made me question if riding a motorcycle is worth the danger and made me reconsider encouraging non-riders to become motorcyclists. They'll need to weigh the risks and take responsibility for that decision themselves.

Right about now you're probably mumbling, "Stop overreacting. You can get killed fluffing a pillow." Yeah, I know life is full of surprises, but certain activities really are more dangerous than others. Even so, Racing The Gods should be

> required reading for anyone applying for a motorcycle license-not to scare them off like those old auto-accident clips we watched in driver's ed class but to make new motorcyclists realize what a terrible gift we have been given.

The mark of a good book is the emotional reaction of the reader: Did it make you feel? By that measure Racing The

Gods is a great book. It brought out emotions that I would rather leave unmolested. I'm still going to ride motorcycles and trust in dumb luck. And one day I'm going to ride over to see Mr. Ritter and shake his hand: I want to absorb that iron will by osmosis. And we'll talk then-not about the book or his injury but about Ducatis and racing and any other damn thing we please.

This book comes highly recomme<u>nded.</u> and it may feelings loose inside that vou didn't know you had. Yeah, it's that kind of good book.

Even as a zygote young Mr. Gresh could be heard making vroom-vroom motorcycle noises, albeit very quietly as his mouthparts had not yet formed. It only got worse over time. Now, there's no way to stop his incessant bleating about motorcycles, especially if the topic turns to vintage Yamaha two-strokes.



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### HOMEWARD BOUND

ou can't go home again, but your path might wend that way.

The fiercest, grandest thing I'd seen in life was the day
Carl roared into our circular drive with a cop on his tail.

While Dad politely ejected the officer with a firm explanation of warrants and such, I stared into the finish of my cousin's Norton like an Aztec catoptromancer. She was bad and black, and she was lit by chrome, and I swore by God that I'd ride her home.

It took me 44 years.

Doug Watt, proprietor of MotoFantasy (motofantasy.net), waited four years after making a deposit on one of the first 50 Commando 961s in the US. Once his unit shipped, Doug wasted no time ordering the full slate of performance goodies before picking it up in San Francisco and riding it up PCH to his motoinn. He's a motorcyclist, not a collector.

Then he turned her out on livery because he's an enabler too. When Doug rolled the New Blackness out of his garage, my knees melted slightly. Chrome over alloy over unalloyed black, it gleamed dark and wicked as midnight on Catherine Gale's catsuit. The Commando's old-school factory build is based around carefully formed parts, hand-assembled with respect by skilled Donington Hall tradesmen and their supply train of subterranean armorer dwarves.

"Chrome over alloy over unalloyed black, it gleamed dark and wicked as midnight on Catherine Gale's catsuit." Doug's 961 Sport is further adorned with top-tier updates, including upspout SBN pipes, BST carbon-fiber wheels to match her mudguards and chain protector, plus obligatory Öhlins magic-carpet ride. While one must preference proper form over outright numbers, the remap and pipe ought to produce around 90 hp to go with the 90 pound-feet the factory poured into her torque reservoir.

"It's everything you need in a performance bike," Watt observed, "and nothing that you don't." Then he winked and tossed me the keys.

The sound of a 961 cranking evokes dawn breaking over Valhalla. There's booming and sucking and roaring but also something deep within: large, hardened parts sliding past each other like the crank journals on a steamship.

All summer long, interesting bikes flock toward MotoFantasy. The Norton was surrounded by guests' Valkyries, Velocettes, KTMs, and a perfectly smoked R100RS, but the purest fetish bikes roll straight out of Doug's garage.

Doug isn't casual about poly-bikery. He loves each like kin and worships them like a teenager. "Sure, we put bikes on pedestals," he said. "Every one of our bikes is on a pedestal! Our pedestal is the road."

So much confidence. How many of the exotic bikes from your collection would you lend to strangers for a few bucks a day?

Doug knows the bikes need it as much as you do, and over the road this Commando shines like a dark star's last gleaming. Wrapped in a liquid fall of notes, Britain's second-eldest marque pulls hard out of corners and will skim its footpegs as close to the pavement as your knee surgeon will allow. Nicely calibrated Brembos de-torque capably. While this bike is arrayed

comfortably enough to entertain gentlemen of a certain age, straights are just waiting periods between corner arcs laid down like a master album groove.

Commandos like it twisted. Long and lean, firm and lusty, it doesn't want to return you a silky smooth 180 mph. It wants to snake you down that road that deviates homeward, back where a black lass with gold jewelry and a Brit-inflected blues voice slaps the sanctimony straight outta Grandma.

"That," Pretty Wife said after chasing me through a long string of pine-lined corners, "is the sexiest sound any bike ever made."

She's right as usual, but I knew it first. I was seven years old when I gazed into that dark mirror. I saw my future reflected there, and it is good. The Norton showed me home, but I don't need to bring her home.

Doug says I can see her on weekends.



SHASTA WILLSON

Jack Lewis writes preternaturally clean copy, grievously stained by filthy words. In addition to journaling his motorcycle misadventures in Motorcyclist and on jaxworx.com, Jack has released books including an Iraq military memoir titled Nothing in Reserve and the definitive work on (Jack's) motorcycle riding, Head Check. We recommend them.



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# **KEITH CODE**

### RACE FACE

oadracing has often been described as more of a mental than a physical activity. Each racer goes through his or her own personal preparation rituals in order to achieve the best result on race day. Some riders are pointedly outgoing and gregarious, purposefully keeping their minds off the coming race. Others are more introspective, savoring the raceday environment of tension and expectation, milking it fully to attain their desired pitch. Still others choose a disposition of defiance or bravado. They're all tuning a complex instrument, searching for the perfect note and the harmony they hope to find after the flag drops.

Retaining the enormous quantity of information that comprises a single lap is largely what any rider's pre-race state of composure is all about. Behind the so-called race face, whatever that might look like for each individual rider, every nuance of the track is kept tidily wrapped and stacked in personally coded packets that must spring into action at the start.

You could say the race face is a protective mask worn to prevent outside influences from entering into a racer's mind or that the mask serves to bridle a rider's own mental forces, keeping these at the ready to be unleashed at the appointed

"The race face is a protective mask worn to prevent outside influences from entering into a racer's mind."

time. The price of protecting that delicately self-constructed universe of perceptions and intricate maneuvers may be high, but failing to spend your last nickel's worth of awareness on it would mean your aim as a racer was less than great.

Accurate impressions of each sensation—each erg of cornering, acceleration, braking, and traction force, each visual cue recorded, each instant of time coordinated into every control action—must remain sequestered and undisturbed until the rider unleashes the megawatts of stored psychic energy it takes to faithfully reawaken those impressions, lap after lap, to no one but the rider's own satisfaction. That's what is on the line.

Any average rider might look at a track and consider how they can adapt to it. A world-class racer looks at how he can exploit the track to conform to his own demands—once he imposes his will on the track, it is conquered. This is thought plus action. This is mind over matter at the very highest level. Having a clear picture of what is necessary to dominate the racetrack must then be translated into the always-elusive process of bike setup—another challenge entirely.

For a racer and his team, the challenge of communicating the collage of impressions of the forces at play while riding is a daunting one. From a practical standpoint, the language to describe these sensations hasn't been developed yet. We don't have the words yet to accurately describe our many perceptions, observations, control subtleties, and intentions when riding at speed—especially not when all of these can be happening simultaneously! The English language has more than a quarter of a million words, with about three quarters of

> a million word meanings, and we still haven't scratched the surface of these descriptions. Slang, or sometimes just sound effects that evoke these dynamic processes, are often as close as we come.

The mark of a champion is a total commitment to his or her own observations. A champion must have an unshakable belief in what he or she sees and feels and

an unwavering ability to live by and for that belief. These are the tools used to achieve that pitch-perfect note or to ride that special wavelength of a winner. Many riders need a race face to maintain this catalog of observations. It's part of the game, and it helps to ensure the phenomenal rewards to be experienced from embracing and commanding the forces they consistently challenge.



Yamalube/ Westby Racing's Josh Day displays classic race countenance prior to the **Superstock** race at Laguna Seca.

Keith Code, credited as the father of modern track schools, founded his California Superbike School in 1980 and currently operates programs in 11 countries and on six continents. His A Twist of the Wrist series of books (and DVDs) are thought by many to be the bible of cornering.





### A QUICK CHANGE, LONG OVERDUE

ecently, a photo of the Graves Racing Yamaha superbike caught my attention. It showed the bike on a workstand in the pits with the rear wheel removed but the sprocket and chain still in place. Was I looking at some innovative quickchange rear axle setup that allowed the sprocket and chain to stay put while the rear wheel was removed?

I wasn't. The sprocket and cush-drive hub was simply slipped back in place on the axle to keep everything tidy while the wheel was off. No new invention here. But the possibility that this was some novel quick-change setup took me straight back to 1988, when I was involved in discussions with Yamaha concerning my RADD front suspension that would eventually appear on the Yamaha GTS1000. I had also shown Yamaha some ideas that I'd decided not to patent, and a quick-change rear wheel was one of those ideas.

A year later, Yamaha debuted an innovative concept bike called the MORPHO at the Tokyo Motor Show. Ergonomic adjustability gave the bike its name—it could "morph" into different riding positions—and at the front end it used a suspension looking much like my RADD system but with a different (and ultimately unworkable) steering arrangement.

The rear end featured my quick-change rear-wheel setup, with a sprocket, chain, and brake disc that all remained

"Innovation doesn't always mean performance. Sometimes it can mean something as simple as convenience."

undisturbed when the wheel came off. Yamaha had decided that the single-sided swingarm was Honda's exclusive territory— Honda then used single-sided swingarms on a few different models, all based on technology from the French ELF racebikes—and it was looking for ways to incorporate the advantages of a single-sided arm on a traditional, dual-sided setup.

My idea, as it appeared on the MORPHO, positioned the disc and sprocket close together on the left side, all held in place by a short, hollow, large-diameter stub axle. A conventional axle that passed through the stub axle held the wheel itself. Pulling the wheel axle out allowed the wheel to be removed while the disc, sprocket, and chain remained in place and in adjustment.

The MORPHO guick-change assembly never appeared on a production bike, but this wasn't the end of the story. Yamaha adapted the system for endurance racing bikes in the early 1990s, and the bikes raced at Suzuka and other World Endurance Championship events around the world utilized a spin-off of the MORPHO system. In this application the brake disc was located outside the sprocket, on the left side, so that a smaller disc could be used while still retaining standard, non-offset (centerspoked) racing wheels.

As conventional quick-change setups for racing improved and allowed ever quicker wheel swaps, specialized options like single-sided swingarms and the Yamaha system based on my idea became less necessary in endurance racing. But my thinking is that everyday motorcyclists need something like the quick-change system I came up with in 1988 just as much now as we did back then. Who likes messing with a dirty chain just to pull off the rear wheel? Who likes aiming the brake disc into that small slot between the brake pads as the wheel goes back in? Who hasn't heard of someone accidentally hitting the rear brake pedal when the wheel was off and then having to lever the pads back out? Maybe there are a few masochists who enjoy these

exercises, but I've never met one.

Imagine having to detach both the drive and brake mechanisms to change the tire on your car or truck. This is what we do on most bikes. Given the choice, I prefer a

true single-sided rear swingarm, but if we need to have two-sided arms, we should at least have a system that allows the chain and brake to remain in place. Innovation doesn't always mean performance. Sometimes it can mean something as simple as convenience. What a concept that is.

Ease of use was key to the MORPHO's design. The entire cockpit and was highly adiustable.



James Parker designed his first original motorcycle in 1971; his most recent design is the Mission R electric superbike. In between, he worked on multiple other motorcycle projects, including 30 years spent evolving the RADD front suspension system used on the Yamaha GTS1000 and various other prototypes.



WARNING: This product can cause mouth cancer.

### MCMAII

### A ROCKY ROAD

Thanks to Ari and Zack for the best article ("Scramblers in the Rockies," November 2015, MC) since "Ruby's Ride" (March 2015, MC) and one of only those two really memorable features in, well, memory. Adventure is exactly about not knowing how it's going to turn out, but being willing to find out, no matter which way it ultimately turns. Now, I'm off to my local shop to price a set of TKC 80s!

Dave G. / via email

### **BALED OUT**

I enjoyed the "Scramblers in the Rockies" story. The fact that these guys went to such lengths to "prove out" the worth of these new "old bikes" affirms just how trustworthy your magazine is. I must say, however, that when it came to repairing broken brackets and such in "the old days" I was more often using wire from a hay bale, which would be baling wire, not "bailing" wire.

Bill Warner / Double Oak, TX

Would you believe that it was so wet we needed "bailing" wire? No? -Ed.

### TIED TO THE BACK OF A BUICK

Really enjoyed your "Scramblers in the Rockies" article. The few of us old timers who ran enduros and English trials back in the '40s and '50s would consider the new generation of riders a bunch of spoiled candy asses. We rode what we competed with to the event and hopefully back home. Those who trailered or brought their bikes tied to the trunk of a Buick were not allowed to drink anything stronger than sarsaparilla and were given pink scorecards. We old timers do drool a lot, it's true, but right now I am drooling over that Ducati Scrambler.

Russell "Geezer" Groover / Brooksville, FL

### **AHEAD OF THE CURVE**

Thanks to Mitch Boehm for another great look back at some of the bikes that helped get modern motorcycles to the point of development they have reached today. (Roots. "Second Chance Cruiser," November, MC). That firstgeneration Virago did have



### Stoked by Scramblers; Loving the Virago; Don't Retire (Again), Dain!

### LETTER OF THE MONTH

### **BLACK BEAUTY**

As a new subscriber to Motorcyclist, I was stoked to open my first issue and see the article on the history of the Yamaha Virago (Roots, "Second Chance Cruiser," November 2015, MC), a venerable cruiser that proved itself over its nearly 20-year production run. The 1998 XVS1100 I bought two years ago, with only 5,700 original miles, looked like it had never

spent a night outside and has given me countless hours of solid, torquey joy booming around the country roads of Central California. It reignited what I always loved about riding. I'm gonna run

this Black Beauty 'til one of us gives up!

Dan Dozier / via email

Thanks, Dan, for reminding us how much joy there is to be found in a 15-year-old machine. As thanks, we're sending you a set Sidi Black Rain boots (\$250; motonation.com). These membraneequipped boots are waterproof yet slightly breathable so you won't get clammy. —Ed.

some issues, not least of which was a

As Boehm points out, the '81-'82 Virago

starter better suited to a 10 hp riding

and Seca 750 were among early 1980s

features to digest; maybe too many—like

the Virago's six-way adjustable mono-

shock and thrumpy but smooth contra-

rotating engine, or the Seca's hydraulic

anti-dive front suspension, digital dash

riders who passed over the XV750 don't

might have come on too strong. Still,

know what they were missing.

Gary Ilminen / via email

models that gave buyers a lot of new

lawn mower than a 60 hp cruiser.



The November issue arrived yesterday. and I thought the fun element was very evident in your article on scrambling the Triumph 900 and Ducati Icon in the Rockies. Also, Mr. AARP, Dain Gingerelli, is so funny to read. I hope you will give him an analog bike to ride next time.

Ted Willi / via email

motorcycle writer and the new R1. I do it the 1970s. Yes, he was fast. It is nice to see someone older test some of the new motorcycles. I was wondering how old Dain is because of the last comment at the end (getting social security soon). All I have to say as Bruce Willis says in *Die* Hard: "Welcome to the party, pal!"

Lawrence Schenk / Las Vegas, NV

When we asked, Dain simply said, "Older than you punks!" —Ed.

I enjoyed Dain's article about an old racer/ remember Dain from the AFM racing back





### 1958/1969 Harley-Davidson Shovelhead

NAME Ed Riggins

AGE

HOME San Francisco, California

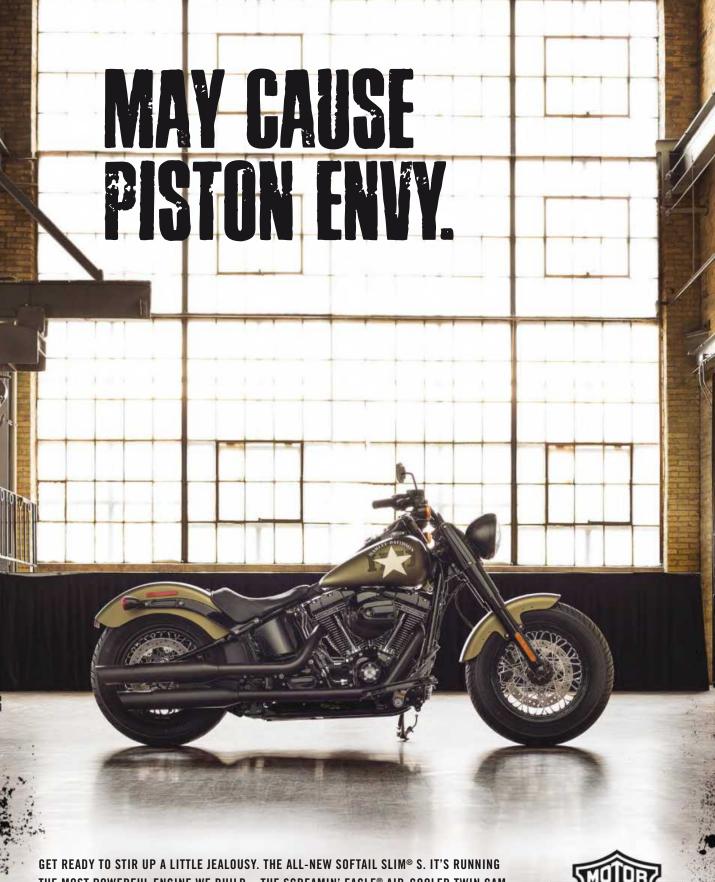
OCCUPATION Publisher, Thrasher magazine (retired)

I built this bike from parts 45 years ago, after I grew tired of the bad-handling, poor-stopping Harleys of the era. This one has a 90-inch (1,475cc) stroker Shovelhead engine with lots of headwork, bigger Sifton valves, a 40mm Weber carb, and a custom exhaust by Tony Williams. It's a '69 motor stuffed into a '58 frame that's been heavily modified in the rear to make it stand upright like the Triumphs it was patterned after. Front discs and lower fork legs are from a '60s Honda, with Ceriani triple clamps and Tommaselli clip-ons. Headlight, taillight, and tank are Triumph. The seat is an XR-750. There were some bugs to work out, a few trials, and a bunch of errors, but overall I think my café racer came out pretty good for a backyard-engineering project.

I liked being able to corner without dragging parts, and I liked to hit the brakes hard, to the point of lockup, both of which were unheard of on any Harley-Davidson at that time. My bike was as fast or faster than anything on the road for a while, too, but of course that didn't last very long. It even got decent gas mileage. Two weeks after I finished it, I left for the Grand Canyon with a friend on his CB750. At the first gas stop I needed a lot more fuel than he did, which I blamed on the Weber. The rest of the way back to SF he always used more gas than I did, which amazed us both. I also like having other Harley riders ask me what kind of bike I'm riding.

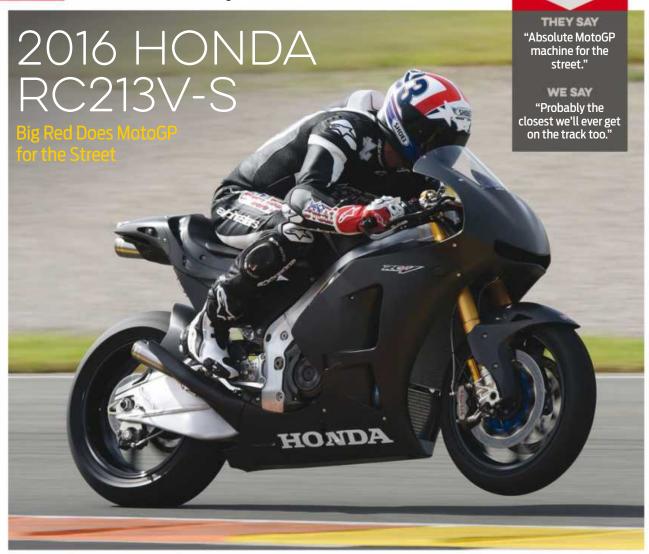
The whole bike is showing its age—some of the parts on it have a zillion miles on them—so I'm making some updates now. I'm shooting for modern braking and handling with some parts off a '90s Ducati 900SS, but I'll still it should make this version look almost stock.





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I grew up with photos of Grand Prix motorcycles covering my walls-mostly 500cc two-stroke NSR Hondas and generally painted in Rothman's or Repsol colors. Eventually I watched Mighty Mick Doohan's dynasty come to an end and Valentino Rossi's begin. I watched Rossi dominate the field on the radical, five-cylinder RC211V, Nicky Hayden salvage the world title against the odds, and now the genius of Marc Marquez take the globe by storm.

What never changed was my infatuation with the machines. I love that they are cutting edge, insanely powerful, and ultra rare. In particular, I love that we never know just how cutting edge or powerful they are. Being competition prototypes the companies are under no obligation to say how the valve trains work, exactly, or how much horsepower they really produce. Not knowing adds to the mystique.

And so it was with a bit of apprehension

that I swung a leg over Honda's new RC213V-S. Was I worthy of this \$184,000 slice of MotoGP history, or the horde of Honda Racing Corporation employees preparing the bike, or the opportunity to ride it on an empty Circuit Ricardo Tormo in Valencia? No, of course I'm not worthy of it. But I tried not to let that—or the deep and obvious concern in the eyes of the HRC engineers—get to me as the RCV-S grumbled out of pit lane.

Also, not inconsequentially, this bike was outfitted with the so-called "Sports Kit," the track-only accessory pack that sheds 22 pounds of street bits and costs the better part of \$15,000. It comes with, among other things, ram-air ducts to replace the headlights, new spark plugs, a circuit-only exhaust, and a new ECU with revised fueling that ties it all together to produce nearly 215 hp at the crank. The new ECU also includes a launch mode and more adjustability for Engine Braking modes

(we'll dive into that later).

The shift pattern can be changed to GP style—that's one up and five down—and hardware is provided to change rear suspension ride height. There are also more aggressive brake pads, a sprocket set, a special thermostat, and a GPS unit for data logging. That's many a piece of moto-porn, and truthfully just the sound from the exhaust is worthy of an NC-17 rating; it snarls and crackles the acoustic equivalent of a cocky sneer with every rev.

There was plenty to be nervous about, so I focused on the easy stuff first. Before hitting second gear the ultra-aggressive rider triangle was apparent. The clip-ons are at about the same height as the tall, thinly padded seat, putting lots of weight forward on the grips. Footpegs feel high, too, as you would expect from racederived ergonomics, but at 6-foot-2 there was plenty of room for my legs. You would expect the TTX36 shock and gas-charged

TTX25 fork suspending the RCV-S to feel good, and they did, though quite stiff even on the glass-smooth track.

As intimidated as I was, the bike was undeniably easy to ride. The throttle response is quick, fueling is perfect, the dry clutch is light and accurate, and every control on the bike responds with an immediacy that can only be born from tireless engineering. The power and acceleration is mind-bending all on its own, and yet the rest of the machine is just as astounding. With a few laps under my belt I began to enter corners faster and faster, and this is where the RCV-S really shines.

The transmission is one area where the S differs greatly from the MotoGP machine, utilizing a standard gearbox rather than the state-of-the-art seamless system fitted to Marquez and Pedrosa's bikes (there's no auto-blip downshift on the S either). What the RCV-S does have is a sophisticated engine-braking system, adjustable five ways (four with the street ECU), that cracks the throttle plates open during deceleration at high rpm and slowly closes them as the revs drop. The result is ultra-smooth deceleration, even if your downshifts are clumsy and poorly timed. It doesn't hurt that the transmission is insanely easy to use, with short throws and extremely precise feedback.

The brakes are also predictably amazing. Massive Brembo calipers squeeze 320mm discs, and because the

bike is so light (hardly more than 390 pounds wet, Honda says) it sheds speed incredibly well. When the corner does arrive, any misjudged line is easily fixed with light steering and loads of feedback.

In the press briefing the night before, lead test rider and ex-MotoGP racer Shinichi Itoh said, "Machines that win races are machines that respond to the rider's will." When you bend into a corner on an RC213V-S you will feel the result of this philosophy. No matter how quickly I flicked from side to side, or how early I felt like I got on the gas, the machine seemed to know what was coming.

And that, as Itoh-san said, is exactly what Honda was aiming to accomplish. In presenting the RCV-S to the media, Honda engineers and project leaders stressed that horsepower was not the goal (even though in kitted trim it is astonishingly

quick) but rather constantly repeated that the basis of the project was to create, "the world's easiest machine to maneuver." In other words, the best-handling bike ever, not the fastest.

In parallel there are a handful of firsts for Honda sportbikes, things that interestingly Honda did not emphasize or even discuss in the RCV-S media presentation. For example, the quickshifter and the full-color dash, with a bar tachometer reaching across the top and adjustable for which information is displayed, are new to Big Red. Then there are the ride modes, which can be tailored individually to set the nine-setting traction control, five-way adjustable engine braking, and three power modes to suit your style.

Power modes are regulated via the ride-by-wire system and offer linear changes in power and torque outputs—P1





Braking and suspension components (above left) are top of the line throughout, as you would expect. The seat (above right) is minimalist, but we're betting if you get to ride an RCV-S you won't care. HRC test rider Shinichi Itoh said he wished the real racebike was as comfy!





is the most aggressive with the most power, P3 the least. Honda didn't provide claimed numbers for each mode, probably to protect some of the recipe for the HRC special sauce and also because output for the street machines is different between bikes shipped to Europe, Japan, Australia, and the States.

Five years ago, the Honda Selectable Torque Control (HSTC) system controlling traction would have been revolutionary. Anymore, lots of bikes work like this. A Bosch Inertial Measurement Unit detects each of the machine's movements, from roll characteristics to lateral acceleration, and communicates the information to the ECU. The IMU information is combined with front and rear wheel-speed data to mitigate the torque that is allowed to the contact patch—basic stuff these days (though there is no ABS). Honda did boast a little by pointing out the RCV-S system is especially sensitive to vehicle roll and position detection due to technology developed for the company's ASIMO robot project.

But really, it's all of the stuff aside from the electronics that make the RCV-S such a stunning motorcycle. Mass centralization techniques used on the RCV MotoGP racer are translated directly to the S-things like the fuel cell residing mostly under the seat, to carry the weight of the gasoline as low as possible. Because of that, the bottom of the tank is just above the top of the swingarm, which is why the swingarm

### WHAT ABOUT THE ONE WITH BLINKERS?

This is where it gets confusing. If you're a financially secure American enthusiast with a thirst for adrenaline and an RCV-size hole in your garage you might be tapping off your Cuban and thinking this machine would look mighty fine in your collection. Not so fast.

Honda huggers in the US of A will receive only the street-spec version, with a 9,400rpm rev limit that holds the V-4 to 101 claimed horsepower, and no Sports Kit available. While the attendees of the global launch didn't get to test the US-spec bike, we were afforded two sessions on the Valencia circuit on the European-spec streetbike, with lights and blinkers in place and 157 hp (claimed) at the crank.

Overall acceleration on the straights was not particularly impressive compared to a BMW S1000RR or Aprilia RSV4—the rev limiter cut in abruptly at around 12,200 rpm—but low-end and midrange thrust was instantaneous. Compared to the kitted bike, the street version feels quiet and relatively tame, though after a few cautious laps we were able to feed enough power to the ground that the DOT-spec Bridgestone RS10 rear tire started to squirm exiting corners, with what felt like hardly any throttle. An orange "T" light on the dash illuminated to say that the HSTC was working and offered a gentle reminder of the \$184,000 price tag.

The street-limited Euro-spec RCV-S won't light your hair on fire with acceleration, but it is without a doubt the most precise and direct motorcycle available. Call it an overpriced collector's item if you must, but there is simply no way to feel as connected to every piece of a machine than to slice through a set of corners on an RC213V-S, Sports Kit or not.



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bracing structure is triangulated down rather than up. This isn't a swingarm sort of like the RC213V racer; it's the same swingarm. That design, along with the plethora of other strategies and techniques that Honda Racing Corporation has learned over the nearly 15 years of four-stroke MotoGP racing, is essentially all wrapped up in the RCV-S chassis, and it feels like it.

Once up to speed and breathing a little deeper I tried to engage the traction control, coming out of a first-gear corner and pouring on the gas heavily just after my knee lifted off the ground. No luck. The rear slick dug in and carried the front wheel out to the curbing, wheelie-control light blinking calmly and the bike blurring my vision with acceleration.

Trail braking, corner exits, fast sweepers, frantic downshifts from 185 mph: I went as fast as I dared, and never once was there a wobble, shake, or misstep by the bike. It seems my first impression was correct: I was not worthy.

Simply put, Honda's RC213V-S is the most composed, utterly capable motorcycle I have ever ridden.

You might be mumbling to yourself that it ought to be the best bike ever for the better part of \$200,000. And, if you live in the United States, you might be appalled that the American version only has 101 hp, and there is no Sports Kit available (see sidebar). Those are all fair-minded feelings to have, but now that I've ridden the

bike I'm starting to come to understand the exorbitant price.

The truth is, I have mixed feelings about this bike being released to the public in the first place. Part of me would prefer if MotoGP bikes were only ever allowed to be ridden by MotoGP riders; it should be earned, not purchased. But it's not up to me. Honda has cracked the door open to the tune of no more than 250 units. Something tells me those owners who have the means to purchase this motorcycle confined to American shores will find a way to unlock the machine inside the US-spec version. What's 12,000 euros for the Sports Kit and shipping costs from Europe at that point?

I always knew that it would be valuable as a museum piece, a meticulously crafted piece of machinery from deep within HRC, and a crown jewel of almost any collection. For the right person, and any Honda enthusiast, that's worth the asking price. What changed my mind was feeling the potential of the machine unleashed. Lighting the fuse on a MotoGP engine (albeit without the pneumatic valves or the seamless gearbox) and soaking in the sensation of carving through a corner on a true, sub-400-pound, carbon-draped, slick-shod Grand Prix replica got the point across to me. There is simply nothing else like it.

In street trim, an exquisite museum piece and a fun Sunday ride. In kitted trim, the closest you will get to MotoGP, period.





Sleek bar-end mirrors (top) were used in order to maintain the shape of the RCV fairing, HRC says. No, they don't work very well. The excellent full-color dash (above) is new for Big Red. Bring it to the mainstream, Honda!

### TECH CDEC

TECH SPEC	
PRICE	\$184,000
ENGINE	999cc, liquid-cooled V-4
TRANS/FINAL DRIVE	6-speed/chain
CLAIMED POWER	215.0 hp @ 13,000 rpm
CLAIMED TORQUE	87.0 lbft. @ 10,500 rpm
FRAME	Aluminum twin-spar
FRONT SUSPENSION	Öhlins TTX25 fork adjustable for spring preload, compression and rebound damping
REAR SUSPENSION	Öhlins TTX36 shock adjustable for spring preload, compression and rebound damping
FRONT BRAKE	Brembo four-piston calipers, 320mm discs
REAR BRAKE	Brembo two-piston caliper, 220mm disc
RAKE/TRAIL	24.4º/4.1 in.
SEAT HEIGHT	32.7 in.
WHEELBASE	57.7 in.
FUEL CAPACITY	4.2 gal.
CLAIMED WEIGHT	392 lb. wet
AVAILABLE	Not really, no
MORE INFO AT	rc213v-s.com





This might be the least surprising KTM of all. From the introduction of the 1290 Super Duke R, an astonishing motorcycle that earned this magazine's Motorcycle of the Year award in 2014, you could see experienced riders imagining a more travel-oriented version. More comfortable, perhaps a bit more fuel capacity, some weather protection. But you could also imagine them thinking: Please, KTM, don't make it any less potent.

KTM fans have their way with the 2016 1290 Super Duke GT, which I was privileged to ride at the factory as one of the few outside the company to try it in late-prototype form. In developing the GT, KTM paid close attention to feedback from its test riders and customers, as Vice President of Street Development Sebastian Sekira explains. "We started work on this bike in the summer of 2013, and it came about almost accidentally when we were

making the last test rides with the normal 1290 Super Duke R just before it was launched," he explains. "These showed us the versatility of the bike because we realized that besides making really fast laps on the racetrack on it, you can go riding with friends over a weekend or even make a holiday trip with it. So, based on our experience with the prototype Super Duke R, the idea was born of making a GT version with a frame-mounted fairing, some space for luggage, a bit more tank capacity, and even a little more performance as a more exclusive high-end model."

That last statement should make Super Duke R owners a little jealous, as the 1,301cc, 75-degree V-twin is something of a hybrid between the Super Duke R and the new 1290 Adventure, using the latter's revised cylinder heads with reshaped combustion chambers and ports for improved midrange torque

and efficiency. But where the Super Adventure is limited to 160 hp, the GT has the same 180-hp peak as the Super Duke R-plus more midrange torque, if that's even believable—all while meeting the tough, new Euro 4 emissions regulations.

The result is the best of both worlds in delivering a noticeable hit of extra midrange performance that's maintained all the way to the 10,200-rpm limiter, along with little vibration at any engine speed. Switching on the stock cruise control to run at 80 mph along a four-lane highway delivers effortless mile-eating that's free of any tingles. It's evident that what KTM has done here is to extract extra performance from the V-twin engine over and above the Super Duke R's already impressive numbers while at the same time making the bike easier to ride.

And while the engine is decidedly ferocious, don't think it's abrupt. Even off



closed throttle in Sport mode (the most aggressive of the GT's three available engine modes) response is smooth and controllable.

To create the GT, KTM has taken the Super Duke R's tubular steel-trellis frame and, while retaining the same geometry, has strengthened it to accommodate a frame-mounted upper fairing that delivers greater protection via an eight-positionadjustable windscreen. There's also a longer, stronger, new rear subframe to give the passenger extra room as well as to facilitate fitting specially designed hard panniers alongside the integrated luggage rack that'll come as standard. There's also a new bigger, plusher seat aimed at improved comfort. Finally, KTM's has boosted the SD's tank capacity from 4.8 to 6.3 gallons, greatly extending the bike's range.

Since the GT is something of an amalgam of Super Duke R and 1290 Super Adventure, it's no surprise to see WP's new semi-active suspension here. As on the Super A, it has four modes, only here called Soft, Street, Sport, and Touring, that work independently of the four ride modes that set throttle response, ABS and TC thresholds, and brake combining. These are labeled Street, Sport, Rain, and Supermoto. (Supermoto allows for total rear-wheel lockup under braking-the KTM way!) Suspension action is firm but well controlled and never harsh.

All I can say after sampling this preproduction GT is that I can't wait to be let loose on the finished product. The more upright riding stance with plenty of legroom for taller riders, coupled with the wider, flatter taper-section aluminum handlebar makes the GT brilliant. It has as much performance as the Super Duke R with a lot more versatility.



**Developed from the 1290 Super Duke** R with longer-distance travel in mind at no cost in performance and attitude. Only slightly grown up.

**Aprilia Caponord 1200, BMW R1200RS** and S1000XR, Ducati Multistrada 1200 S, Kawasaki Versys 1000, KTM 1290 Super Adventure



The Duke GT is poised to be a truly outstanding all arounder, but the big guestion is price. Considering the Super Duke R goes for \$16,999, the GT (with electro suspension and lean-angle lights from the Super A) will likely ring in over \$20K.



### VERDICT

With the power of the Super Duke R and additional refinement, the GT might be the best roadgoing KTM yet.



TECH S	PEC
PRICE	N/A
ENGINE	1301cc, liquid-cooled 75° V-twin
TRANS/FINAL DRIVE	6-speed/chain
CLAIMED POWER	180.0 hp @ 8600 rpm
CLAIMED TORQUE	105.0 lbft. @ 6750 rpm
FRAME	Tubular-steel trellis
FRONT SUSPENSION	WP 48mm fork adjustable for spring preload with dynamic compression and rebound damping; 4.9-in. travel
REAR SUSPENSION	WP shock adjustable for spring preload with dynamic compression and rebound damping; 6.1-in. travel
FRONT BRAKE	Brembo four-piston calipers, 320mm discs with ABS
REAR BRAKE	Brembo two-piston caliper, 240mm disc with ABS
RAKE/TRAIL	24.9°/4.2 in.
SEAT HEIGHT	32.9 in.
WHEELBASE	58.3 in.
FUEL CAPACITY	6.3 gal.
CLAIMED WEIGHT	N/A
AVAILABLE	Spring 2016
MORE INFO AT	ktm.com



### THEY SAY

"For those who make performance their lifestyle."

### WE SAY

"Another impressive R model for the Ducati history books."



The 1200R's color TFT dash tucks in behind a new mini fairing and now features a large gear-position indicator.

Ducati's redesigned 2014 Monster 1200 was larger, more comfortable, and more usable than any of the compact and feisty machines that had come before—at the expense of some sporting prowess. Now that prowess is back, thanks to the 2016 Monster 1200R.

The R sits on new Öhlins suspension that's 15mm longer, raising the bike's stance for much-needed cornering clearance. Ducati also blessed the R with more power—a claimed 160 hp and 97 pound-feet of torque compared to the S-bike's 145 hp and 91.8 pound-feet—by way of a higher compression ratio, bigger throttle bodies, and a redesigned exhaust. Other notable improvements include an adjustable Öhlins steering damper behind a new mini-fairing, separate rider and passenger footpeg assemblies with new knurled footpegs, a higher seat, and an attractively compact tailsection. Ducati says the bike is 5 pounds lighter than the 1200S, a claimed 456 pounds wet.

Ducati invited journalists to the beautiful 3.4-mile Ascari circuit in southern Spain to put the new machine through its paces. Ducati isn't presenting the 1200R as a track bike but rather as a sporty naked that is as at home on the track as it is on a twisty road. And Ascari represents those two environments beautifully, combining the tight features of the best Alpine pass with fast turn

### EVOLUTION

The Monster 1200S, with more power, more ride height, and other upgrades, aimed at improving its sporting prowess.

combinations plucked from the finest racetracks in the world.

The R's handlebar is the same wide, comfortably high Monster setup, but the taller seat puts you farther over the front of the bike in a satisfyingly aggressive riding position. Your feet rest on grippy, texturedaluminum footpegs, and there's ample room for your heels now that the passenger footpegs hang from separate brackets. Cornering clearance is greatly improved on the 1200R we ground the heck out of the low-riding 1200S we tested at the track in 2014, but the R only occasionally kissed the ground.

Power is strong off the bottom, kicks in hard in the midrange, and carries through to the 10,500-rpm redline without losing much intensity. I was downshifting to second for some of the hairpins but later discovered that the bike pulled just as hard in third. The Monster turns quickly considering its long wheelbase (lighter wheels and a higher center of gravity surely help), and it has great front-end feel that encourages you to trail brake all the way to the apex.

Premium suspension and uprated performance come at a price: \$18,695 in red and \$18,895 in black. That's nearly

### VERDIC

Sportier—and thus more track worthythan any Monster to date.

Aprilia Tuono V4R, BMW S1000R, Kawasaki Z1000, KTM 1290 Super Duke R, MV Agusta Brutale, Suzuki GSX-S1000, Triumph Speed Triple R

\$3.000 more than the 1200S and more expensive than the \$16,999 KTM Super Duke R and the \$14,950 BMW S1000R. But while both of those bikes have an R in the name, neither of them is a Monster. No doubt the faithful will pay the premium.

### TECH SPEC

PRICE	\$18,695
ENGINE	1198cc, liquid-cooled 90° V-twin
TRANS/FINAL DRIVE	6-speed/chain
CLAIMED POWER	160.0 hp @ 9250 rpm
CLAIMED TORQUE	97.0 lbft. @ 7750 rpm
FRAME	Tubular-steel trellis
FRONT SUSPENSION	Öhlins 48mm fork adjustable for spring preload, compression and rebound damping; 5.1-in. travel
REAR SUSPENSION	Öhlins shock adjustable for spring preload, compression and rebound damping; 6.3-in. travel
FRONT BRAKE	Brembo four-piston calipers, 330mm discs with ABS
REAR BRAKE	Brembo two-piston caliper, 245mm disc with ABS
RAKE/TRAIL	24.3°/3.5 in.
SEAT HEIGHT	32.7 in.
WHEELBASE	59.4 in.
FUEL CAPACITY	4.6 gal.
CLAIMED WEIGHT	456 lb. wet
AVAILABLE	February 2016
MORE INFO AT	ducati.com



### The tires you can trust your adventure to

For the ever-evolving new generation of sophisticated adventure bikes, Bridgestone fuses the MotoGP heritage of the Battlax brand and the highly acclaimed all-around excellence of the Battle Wing brand to create tires that deliver enhanced traction and stability, particularly on wet surfaces, and greater durability. These trail radials were extensively tested in a myriad of conditions to ensure sportier, yet safer, performance on all roads, in all weather conditions.







**Everything Old Is New Again** in Merry Olde Hinckley

words: Marc Cook / PHOTOS: Triumph





ew motorcycles are as tightly woven into our collective consciousness as the Triumph Bonneville. As the high-performance version of the original British sporting twins from Meriden, the Bonnie set ablaze the smoldering desire of American riders in for a light, athletic, surprisingly fast machine. It seems quaint today, but hitting "the ton," or 100 mph, was a fairly big deal in the 1950s.

History is unflinching in its depiction of Triumph's trials into the 1970s to its ultimate failure in the early 1980s. Its outdated machines stood in stark contrast to the

Japanese approach: increasing technology, rapidly expanding performance, peerless construction. There are many chapters to this tragedy, and this description is admittedly short on nuance, but the results were painfully clear: The grand European brands died (or nearly died and regrouped) while Japan triumphed.

We see things differently now with the strength and technology-leading content of the current European brands, and it could be said that Triumph under industrialist John Bloor took nearly a decade of knuckle-crushing work before launching its cornerstone model in the

2001 Bonneville. (That statement gives short shrift to the many models that preceded the modern Bonnie, including the newly iconic Speed Triple and the oft-popular Sprint models.) No matter how you look at it, the launch of the all-new Bonneville as a 2001 model set in motion cultural popularity and business success that many CEOs would die for. In one seemingly simple, well-styled, and dynamically competent motorcycle Triumph inflamed a desire for simplicity and authenticity that many riders—older ones initially, then a new generation—felt would never be fanned.



"From the faux Amal carburetors hiding the new ride-by-wire hardware to the clever way Triumph's stylists tried to hide the radiator for the newly liquidcooled engine."

And now we're here, 15 years after the modern Bonneville's launch, Triumph trying to capture that magic again—or, more to the point, not trying to screw up the success of the current bike-with a fresh, all-new Bonneville built for the decades ahead. All it took was four years, an entirely new chassis, an entirely new engine family, revised styling, and a rethink of where the entry-level roadster market is going. Without the desire or, frankly, resources to redesign models every couple of years, Triumph had to get the new Bonnie right, the very first time.

For 2016, there are five new Bonneville models, broken down into three core groups: Street Twin entry-level bike, mid-line T120 (in two versions), and the up-spec, muchsportier Thruxton (also in two versions). The Scrambler? Triumph was surprised by the demand for the current machine and added production in 2015 to accommodate; it will continue to produce the existing bike through 2016. We weren't shown drawings or told anything about the next Scrambler, but it's a certainty to follow the new bikes closely, perhaps with a few new styling tweaks.

For now, all of the new Bonnevilles host larger engines so that meeting performance expectations and emissions rules (especially the new Euro 4 regs) would be just a little easier. All have new styling and better detailing. All have been built using as a backdrop the copious amount of owner feedback you get only from a decade and a half



of making basically one motorcycle. All are intended to be built at the Triumph factory in Thailand, right from the start. "It's our factory, really," one Triumph official said. "We have no concerns about starting a new line, even with an important model, there. The prototypes were built here [in Hinckley], but all production will be out of Thailand."

Triumph is currently operating from a position of strength, having sold 54,000 motorcycles worldwide in 2014, up 12 percent year on year. According to Triumph's Miles Perkins, "No question, the Modern Classics led the way." Building in Thailand improves profitability, pure and simple, which makes the Bonnie's popularity even sweeter.

### **STYLING**

Without a doubt, getting the look of the new Bonneville was one of the highest priorities. The previous bike manages to be evocative without exactly aping the original's lines or proportions. And how could it? Today's motorcycles are larger and heavier—something that's immediately obvious when you park a current Bonnie next to an original, as Triumph had during the early press screening of the new model. Original Bonnies are lithe, simple, and almost wispy next to the blockier, more substantial modern version. The new Bonnie, twice the displacement of the original, could not return to that form, but it doesn't mean Triumph didn't try to visually lighten and simplify it.

Stuart Wood, head of engineering at Triumph, says, "We have a strong line that we can trace all the way back to 1959 and the launch of the first Bonneville. We started with a focus to build a Bonneville for the 21st century, not to create a pastiche but a real Bonneville for today that draws more from the styling DNA, particularly in the detail, to make it more beautiful. That said the Bonneville DNA we've carried through is not just about the details. It's also very much about the stance and the line of the bike. One of the real challenges we faced almost every day in development was in how we packaged this equipment and capability whilst remaining true to the look and styling intent. As you can imagine there were some items we really struggled with, but the team won through in the end."

Key styling elements remain from the previous-generation Bonneville, but in general every line has been touched, massaged into a new form without looking out of place. From the faux Amal carburetors hiding the new ride-by-wire hardware to the clever way Triumph's stylists tried to hide the radiator for the newly liquidcooled engine: That is, they didn't try to. A simple, unadorned radiator takes up residence ahead of the twin down tubesno covers, minimal piping. In fact, that's where the genius is. By remotely locating the radiator cap and placing the coolant connections to the engine out of sight, the entire system disappears before your eyes, lost in the gleam of the header pipes, the detailing of the exhaust flanges—barely hiding twin oxygen sensors, very near the ports—and other brightwork.

Special mention for the new exhaust system. While the pipes appear to make an unbroken run from the heads to the reversemegaphone mufflers, in fact they come together just ahead of the lower engine cases to feed a catalyst/expansion box. Flow then comes out of the canister and continues aft to the mufflers, their routing obscured by heat shields. Unless you know where to look, you might not even see the catalyst.

In myriad other ways, Triumph clung to a familiar profile while updating the motorcycle under it. For example, consumer research says seat height is a primary concern, so the new models have been narrowed at the seat/tank junction and the frames carefully altered to place the rider closer to the ground, all without breaking up the traditional seat/bar/peg relationship or making the sleek stamped-steel tanks look too humpbacked.



Styling touches, including faux cooling fins, keep the Bonneville's engine from appearing as modern as it is. Really, there's a four-valve, liquid-cooled powerplant here with state-of-the-art combustion chambers, a 270-degree crank, counterbalancers, and a six-speed gearbox.

#### **ENGINE OF CHANGE**

Triumph didn't need radical solutions to advance the Bonneville's powertrain. For the vast majority of its customers, the air-/oil-cooled parallel-twin engine's modest output, which put torque production over sheer horsepower, was sufficient. With a pair of basic configurations, one with a 360-degree crank and the other with a 270-degree arrangement, there were different personalities for the platforms involved. A smoother engine could be had with the 360-degree crank—where the crankpins rode right next to each other-and one with more texture came from the 270-degree design, where the crankpins were offset by 90 degrees.

In designing the new engine, Triumph's engineers listened to the market, which said that given a choice we'd all prefer the 270-degree layout. so all three versions of the new engine are that way. Of course, with torque production a key design feature, displacement grew. The base engine is a 900cc design, distinct from the 1,200cc variant used in the other four models.

Wood again: "As it's been over 10 years since the last model was launched and legislation has moved on considerably—notably Euro 4—we saw this as a great opportunity to develop the Bonneville and make it better in every way. One key part of this was working hard to package a new 1,200cc engine into a very similar space to the old 900cc engine and to keep that Bonneville 'look' on all of the bikes, maintaining the basic line of the bike, especially where the tank runs through to the seat—we didn't want bigger Bonnevilles."









Clockwise from top left: Retro styling was part of the new engine's development, its modern powerplant underneath. Faux Amal carbs disguise a twin-choke ride-by-wire system. Slim cam covers help disguise the engine's true DOHC layout. That exhaust looks line a single line from the head to the muffler, but there's a break for a catalyst across the front of the cases.



With that in mind, the engine is noticeably more compact, especially the cylinders, one key advantage of liquid-cooling. In order to maintain the right look, though, the cylinders are still heavily finned, which also assists cooling. Hidden in the cases of all three versions are a new six-speed gearbox (still chain final drive), a slip/assist clutch (still cable operated), twin counterbalancers, and a hybrid cam drive with a central chain running up to idler gears, which then drive the twin cams. While the engine qualifies as "all new." it's a familiar kind of new.

For the Bonneville line, all the versions benefit from improved performance, with an emphasis on torque. "On a modern classic it's all about having lots of torque and the character of the riding experience," Triumph engineer Rob says. (Triumph won't give us his surname, saying that only chief engineers get the honor. But we wonder: Do they have witness protection in the UK?) "On the Street Twin with the new 900 engine, we've got 18 percent more torque than on the previous Bonneville. This comes in much lower down and is higher across the whole rev range, which makes the Street Twin feel more exciting and lively." Compared to the 2015 Bonnie, which makes 50 pound-feet of torque, the new one should make 59 at the crank.

But that's just the beginning. The top four models get larger versions of the new twin in two states of tune. The more "civilised" T120 gets a boost of just more than 50 percent, meaning 75 pound-feet

max (again, at the crank) from an engine just 40 percent larger. Where the Street Twin uses a single-throttle ride-by-wire system, the 1,200cc engines get paired intakes and other (undisclosed) changes to engine tune. "The extra torque makes for a very strong ride. You can stay in high gear longer; you can just roll on the throttle. It's got all the oomph you need," Engineer Rob says.

We're salivating for the up-spec Thruxton, also a 1200, that benefits from a higher compression ratio, freer-flowing airbox, and different RBW mapping. So says Engineer Rob, "Basically, it means that we've taken mass and inertia out of the crankshaft and out of other components through the driveline. In turn, this means that the engine is more responsive, it will rev and 'blip' quicker,

and you'll get up to speed more quickly." It's also more powerful, delivering 55 percent more torque than the previous Thruxton, putting it at 79 pound-feet at peak. If we read the tea leaves correctly and the bike keeps 80 percent of its peak torque near the power peak, we're looking at better than 80 hp, quite the jump up from the current bike's 68 hp.

"The increase in responsiveness is a function of the ride by wire, engine mapping, and the tuning combined, and on the 1200s selectable rider modes dictate the throttle response," Rob says. "What we were aiming for was to achieve a really fun and responsive engine character for the Street Twin engine, a sharper and more immediate feel for the Thruxton engines, and a more refined behavior for the Bonneville T120 and T120 Black."

Cradling the new parallel-twin engine is a thoroughly conventional steel-tube chassis with twin shocks. Only Thruxton models get the tasty aluminum swingarm. Note the lack of clutter and, more visible from this angle than most, the compact radiator.



"The T120 is definitely the most authentic of the new family—with the most direct line back to the original 1959 Bonneville, so the styling obviously has to reflect that "



No one ever accused the old Bonneville of having a state-of-the-art chassis. In fact, it was considered conservative back when the original "modern" Bonnie arrived in 2001 and hasn't grown any more advanced over time. There was, naturally, a good reason for the design emphasis, which was simply to preserve as much of the 1960s Bonneville profile as could be done. Forget about an aluminum-beam frame and single-shock rear suspension. No, the Bonnie would have—and needs to have—a simple steeltube chassis, twin shocks, a standard fork, and as much of a recognizable silhouette as the Triumph engineers could manage while providing modern levels of chassis rigidity and up-to-date handling. Oh, and it'd be great if the frame were cheap and easy to build, given the budget nature of the whole Bonneville lineup.

Stuart Wood says that "the way we all viewed [chassis development] as a team was that, just because the new bike has classic styling, it certainly shouldn't be compromised in how we developed the chassis. From the chassis' dynamics point of view, we targeted the character, feel, and performance we wanted for each of the five new Bonneville modelsespecially to get that agility that we're famous for and to get the neutrality and stability that riders want."

Chassis specialist Gavin Hardman: "The chassis development absolutely had to be tailored to each model and what the bikes should be. The brief







Three distinct models are built from one basic chassis and engine. Start with the Street Twin (top), a 900cc entry point, then to the classically styled T120 (middle), and then dream a little dream about the Thruxton (above), shown here in base (non-R) form. Each has a different engine tune, wheel set, and chassis setup to say nothing of distinctive styling. No cookie cutters here!









Details in performance. Twin Öhlins reservoir shocks grace the Thruxton R (left), while a Showa Big Piston Fork shores up the front end (center). Notice the tasty Brembo Monoblock four-piston calipers and 17-inch front wheel, more than suggesting that the new Thruxton will be a massive step up in performance and handling from the current model. More power, too, likely to top 80 hp.

we developed for each Bonneville directed the need for more flexibility to the parts each chassis should consist of, so we could give them the separate characteristics needed to really be the bikes customers were wanting. We focused on making the Street Twin more accessible and fun and the Bonneville T120 slightly more comfortable but still neutral and usable, and with the Thruxton we aimed for a little bit more 'edge' in its dynamics to make it a more exciting ride, a little bit more involving." Triumph got there by subtle changes in steering geometry, weight distribution, tire choice, wheel sizes, and suspension calibration.

#### **FIVE BONNIES, NO WAITING**

Of the five versions, the Street Twin is the low-cost alternative. (Triumph has not yet set prices, but expect the Street Twin to be competitive with the current base \$8,099 Bonnie.) It's distinguished by cast wheels, a single-disc brake up front, and simple suspension from Showa, with adjustable rear preload the only tweaking you'll do. As with all Bonnies, though, the Street Twin comes with ride-by-wire fueling, traction control, and two-channel ABS. Chief Engineer Stuart Wood describes the Street Twin as more contemporary: "When we started work on the Street Twin, we'd already started on

the Bonneville T120 and T120 Black, and we really wanted to contrast their classic looks with a more strippedback, cleaner, and accessible motorcycle—with a smaller, more elegant fuel tank, contemporary upswept silencers, minimal body work, and single clocks."

Moving up from the Street Twin are the T120 twins, the T120 and T120 Black. Both get the larger 1,200cc engine and additional features, including ride modes (there are two, Road and Rain, that influence throttle response). Spoke wheels—using the same 100/90-18 and 130/80R-17 tire sizes as the current bike and the Street Twin-are stylistically different, while a second front disc adds



stopping power. Calipers are the familiar twin-piston, sliding-pin devices we've seen for some time.

Wood again, "The T120 is definitely the most authentic of the new family—with the most direct line back to the original 1959 Bonneville, so the styling obviously has to reflect that. As such, the majority of the styling decisions were made early on: the engine proportions, the fuel tank size, the overall stance of the bike, the wheel sizes. The 1968 Bonneville, which was considered the pinnacle of the Bonneville styling line, was actually the model that influenced us most-and that's plain to see in the peashooter exhausts, the fuel tank, where you could remove the badges and it would still be instantly recognizable as a Bonneville." Expect the T120's price to be close to, but likely somewhat above, the current T100. which starts at \$9.300.

Without a doubt, the model that gets us going is the Thruxton, now in two distinct versions, a base and a surprisingly upscale R. Each gets an even hotter version of the 1,200cc engine, a third ride mode—Sport, Street, and Rain-plus upgraded styling and suspension. While the base Thruxton gets a Showa conventional fork and two-piston brakes, the R goes all the way, featuring Brembo Monoblock brakes riding on a Showa Big Piston Fork, while out back a pair of Öhlins shocks work on the aluminum swingarm (shared with the base Thruxton), for what we expect to be much improved ride quality and a sportier mien. What's more, the bike now rolls on more modern rubber, a

120/70-17 front and a 160/60-17 rear, with Pirelli Diablo Rosso IIs as the OE choice. Taking an inch out of the front wheel's diameter gives the Thruxtons more aggressive steering geometry.

Wood on the Thruxton's styling: "The Thruxton brief was very much about evoking the spirit, attitude, and aggressive poise of the café racers more overtly and beautifully. With the iconic looks of a classic café racer and the geometry and capability of a completely modern motorcycle, we set the ambition for the Thruxton to be the most desirable modern-classic sportsbike in the world." He's quick to point out the Thruxton's "polished aluminium" top triple clamp, saying, "You won't see a top yoke on another motorcycle that's as beautiful," and the Monza-style filler cap replete with locking mechanism. "It's a very direct link to the original Thruxton racers."



A handful of journalists were given an early preview of the Bonneville models at the Triumph HQ in Hinckley. Although the bikes were runners, no impromptu rides.

#### IN PERSON

For this introduction, Triumph invited a few journalists to visit with the factory techs and see the bikes in advance of their general release. From that experience, we can say that the styling of the new Bonnies is even better than they appear in photos, where the side-on shots tends to emphasize the tank seam. Even these, as preproduction models, had excellent fit and finish, smooth paint, delightful details, and a totally finished appearance about them.

Moreover, Triumph allowed us to sit on and start a couple of them. The new engine sounds great and, especially in the Thruxton trim, feels really responsive. Vibration, at least as much as we can test by blipping the throttle in neutral, seems very well controlled. From the saddle, the Bonnies feel tight and compact, with relaxed riding position on the Street Twin and T120 and a none-too-aggressive slouch over the long fuel tank of the Thruxton.

We're more than eager to get our hands on the new Bonneville, especially the up-spec Thruxton R, which looks to not only update the model technically without becoming too far removed from its roots but also dramatically extend the machine's performance capabilities. Cool looking and potentially a hoot to ride: Where do we sign?



## Japan's Big Four, Naked and Loving It words: Zack Courts / PHOTOS: Kevin Wing

# ABIDES



kay, so you followed the advice of forum chatter or a veteran rider. You did the right thing and bought a cheap, beat-up old bike as your first motorcycling companion. You learned the ropes, tipped over at a gas station, maybe even tried to pop a wheelie when nobody was looking, and in doing so bonded like friends at summer camp. But now it's been a season or two, and you've upgraded your gear and saved diligently with the simple goal of getting a fresh, new machine to call your own. A warranty and a clutch lever in its original shape: the American dream.

Among the naked-bike resurgence over the past few years are the European titans, brimming with technology and glistening atop Mount Olympus. A fantasy, really. Ten grand—that's the number you've been shooting for, and with a little stretching there's plenty of bang for that buck if you look east instead of west, to the land of the rising sun and a growing crop of machines with middleweight price tags that pack a heavyweight punch. There's variety in price, size, power, amenities, and opinions. Which one is right for you?





### THE GENTLEMAN'S CHOICE

Big Red's modern CB1000R is the laid-back, dignified, reasonable choice for a handful of reasons. And before we go any further, don't think that it's first up on the list because it's our least favorite. Not even close. The CB impressed more than a few staffers by being an absolute treat to ride. Why so... "mature" then?

The CB is tall and feels like it carries its weight higher up than the others in this test, yet the 32.1-inch seat height is identical to the others except the Suzuki's 31.9 inches. It's fair to note that at 484 pounds with a full tank it's nearly the heaviest of the bunch (the Kawasaki is 488). A high center of gravity is one mark of a machine that might be better suited to tall or experienced riders. Then again neither of our sub-5-foot-8 testers said the lanky feel would keep them from buying a CB.

Once rolling, the Honda sheds its weight well, feeling lighter to steer than all but the featherweight FZ-09. The riding position is neutral and strikes a good balance of sporty and comfy, though the back of the gas tank is a little pointy. Shorter riders might find this more of an issue than the seat height, actually, as the tendency to scoot forward crunched a crotch or two during our test. What almost certainly won't scoot you forward are the CB's brakes. The dual, four-pot Tokicos offer plenty of power, but the initial bite is soft, perhaps to avoid unwanted lock-ups on a bike that isn't available with ABS in our market.

There's no traction control, either, but in that department you're unlikely to be disappointed. The CB1000R uses a retuned version of the CBR1000RR engine from 2007, and in its naked, "tuned-fortorque" state this mill delivers 108 hp with absolutely sublime throttle response. Fueling is the best of the group, with gentle but direct response and enough stomp to lift the front wheel if you want.

The CB's suspension is well calibrated, too, though apart from the Suzuki's setup (best of the group) the Honda doesn't have much competition. Yamaha evidently constructed its coil springs from foam rubber while Kawasaki was aiming for a hard-tail chopper feel, so Honda's choice in using actual springs and oil to damp them stands out as a wise, if conservative, choice. More than anything it's the chassis geometry that continued to impress, with excellent balance and good stability. It's so composed that sometimes it feels like just turning your head makes the CB drop toward the apex.

Fit and finish are a cut above, too, which is a nice feature considering at \$11,760 the CB is only a couple hundred bones cheaper than the pricey Kawasaki. Aside from the funky, convex dash covering that can make the display tricky to read, the user interface is nicely appointed and easy to use. Refinement. That's what it comes down to. The Honda just feels the most polished and complete, even with its few guirks. Make your own judgment regarding the triangular, Star-Fox headlight or the swirled rear wheel. Fact is, the Honda is a terrific all 'rounder so long as hair-onfire performance or electro-amenities aren't at the top of your list.



KAWASAKI Z1000







#### THE URBAN ASSAULT VEHICLE

The Z1000 has probably been around longer than you realize, debuting more than a decade ago. Team Green didn't follow the exact same stripped-down-superbike recipe as some other brands, but the Z has grown to be a part of a family of three models (with the Ninja 1000 and Versys 1000) that share underpinnings. Both the Ninja and Versys platforms have won us over, so from that standpoint the Z1000 is off to a good start.

You have to say the Z is a bold statement too. The Golden Blazed Green paint is pretty captivating in direct sunlight and, as one tester opined, what's the point of a Kawasaki that isn't green? As for the rest of the styling, some people think the angular body panels and quad exhaust look silly; others think it's purposeful and brawny. Either way, it'll cost you \$11,999, and that makes it the priciest piece in this comparo.

In addition to the spicy paint option, there's a fair amount of value packed into the Z1000. There's a seriously burly engine, for one, churning out lots of torque and feeding a fat midrange from its 1,043cc. Initial response is a little jumpy and might be more annoying if the same couldn't be said for every bike here except the Honda. Dual Tokico calipers do good work to slow the Z down and with a more immediate bite than the CB1000R. There's good ABS, as well, which is liable to come in handy with 122 hp on tap.

The futuristic styling flows into the spaceship dash, with blocky digital readouts for speed and tripmeters. There's no gear-position indicator, which, with short gearing and such a wide powerband, means you can count on being a gear or two higher than you think. If you want, don't shift at all! We experimented with leaving stoplights in sixth gear and found it wasn't much trouble for bike or rider.

Overall ergonomics are agreeable and seemed to suit all of our testers, tall and small, though the hard seat was a common complaint. The saddle feels low, as do the pegs, maybe more so because of the massive hump of a fuel tank rising up in front of the seat. Where Team Green missed the mark is suspension, which is all the way on the firm side of stiff. One tester liked the direct feel that results, but most everyone agreed that it just doesn't feel quite right on any surface other than perfectly smooth blacktop. Kawasaki wanted the Z to have a direct rider feel, but this is too far.

As it happens the Z1000 book might best be judged by its cover because the Z rides just like it looks. It's stout and powerful, without being intimidating, but also a little harsh. It tackles twisty mountain roads with enough poise to get the job done but never really feels at home. Geared for a parking lot and paint straight from a custom shop, it is without a doubt the tough, urban streetfigher of the group. If show 'n' go is your thing, the Z1000 is all you'll want.

## SUZUKI GSX-S1000







#### THE TRUE NAKED SPORTBIKE

If you thought Honda using a superbike engine from 2007 seemed like reaching into the back room, archeologists have carbon-dated this GSX-S powerplant to the year 2005. But before you think Suzuki is trying to pull wool over eyes, recall that the so-called K5 GSX-R (origin of this engine) is often regarded as the finest interpretation of the Suzuki superbike lineage. The long-stroke engine mixes smooth torque with a fierce punch in five-digit rpms, which makes it an ideal pusher for a naked with attitude.

Where all of the competition racked up a few complaints about ergonomics, the "Gixxess" gathered practically none. With a cushy saddle and neutral riding position the Suzuki kind of disappears beneath you. That is until you spin the engine up. The GSX-S gets the "true naked sportbike" label by being the only one in this group to actually remind us of riding a liter-size sportbike. The motor absolutely screams up top and makes us think that a bike with this much power should have a fairing. Usually only Euro-nakeds do that.

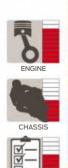
When the time comes to stop, there are beefy, Brembo calipers that are more than up to the task. There's ABS too (a \$500 option on our bike), and while we're on the subject Suzuki sprinkled in three-way adjustable traction control when stirring up the GSX-S, as well as the ability to turn it off. Suddenly \$10,499 sounds like a pretty good deal for a stripped-down GSX-R that lays down 139 hp and has ABS and changeable TC.

One consistent gripe throughout the testers' notes, however, was throttle response. Something in the fueling between no gas and a little bit of gas makes the Gixxess difficult to ride smoothly if you're constantly on and off the throttle. It's especially bad at higher rpm, which is where you want to be in order to harvest the Suzuki's juiciest power. Some of us thought it was a reason not to buy the bike, while others got used to it, but in either case it made us wonder why ride modes from the GSX-R line weren't applied to the naked S models.

When you start wishing for ride modes you know you're getting a little greedy, and truth be told the GSX-S's amenities elsewhere are quite good. The dash is a pleasing array of information, displayed across a basic digital face. Here again, the Suzuki doesn't break any new ground or stun you with features but rather delivers everything you need in a simple, utilitarian way.

Although the supersport character that the GSX-S conveys is awesome, keep in mind that there are some aspects of nakedness we miss. As much fun as a wild, top-end rush is we like a little more grunt in our streetfighters. Call the CB1000R or FZ-09 soft up top if you want, but to us it's the 20–50 mph roll-on that really makes a naked bike a hoot to ride. Pure torque and big personalities might be found elsewhere, but for outright performance and features delivered at a bargain, the GSX-S1000 is awfully hard to beat.







#### YAMAHA FZ-09 THE ROWDY TEENAGER

The Yamaha is the black sheep here. If you average the MSRPs and weights of the three other bikes, the FZ-09 is more than \$3,200 cheaper and 62 pounds lighter than the combined group. Not to mention it has three cylinders instead of four. Plain and simple, it's a smaller, less expensive version of the competition.

When it comes to performance, though, the little Fuzz-9 fits right in. As we've raved about before, the inline triple packs a punch beyond its 847cc and lets loose a playful growl that always makes us smile. There are even ride modes, just like we wish we had on the Z1000 and GSX-S, that tailor throttle response aggression.

Sounds like a runaway victory for the FZ-09, right? At \$8,190 and 416 pounds, with 104 hp on tap? Well, no. The FZ has some shortcomings that put it right back in the mix. For example, even with the adjustable ride modes the Yamaha struggles with the same abrupt throttle response as the Kawasaki and Suzuki; it's worse than the Z1000, though it's not as bad as the GSX-S. The fork and shock, too, leave us wanting, especially during spirited rides on twisty roads. It's neither the first time for Yamaha to be dinged for soggy suspension nor the last unless some stiffer springs and better damping are applied. If you're after class-competitive suspension, plan to spend a good chunk of that \$3,200 price delta to make the FZ-09 right.

That said, the FZ-09 feels absolutely as light as the spec chart shows. Whether darting through the city or bombing along your favorite twisty road the Yamaha is incredibly agile, changing direction even better than the light-handling Honda. Low weight helps the brakes better than they should, too, which have good initial bite but lackluster feel and power after that. A long, flat seat allows a little more room for personal adjustment, rather than the other three with sportbike-like seating pockets. Likewise, the rest of the ergonomics feel less sporty in general, with relatively low and forward-set footpegs and a tall handlebar for the category.

As for options, the Yamaha is pretty thin on features (besides ride modes). There is no traction control or ABS, and the dash will not impress your techie friends. It's a spartan little unit, set asymmetrically in the cockpit, showing all of the necessary information but nothing more. Still, we admit that this class is more about attitude than gizmos and the Fuzz-9 is delivers lots of strapping, streetfighter spirit.

It has been said before, but it's worth repeating: Yamaha hit a home run with the FZ-09. As ride-every-day enthusiasts, though, we're ready for some of the glaring issues to be addressed. For 2015 Yamaha remapped the ECU for smoother fueling but in our view didn't quite complete the job, and as far as we can tell it has ignored nearly every journalist and owner's plea for stiffer suspension. Perhaps corporate doesn't see it as a problem. After all, when reaching for competitors for the FZ-09 we had to go up a class in both displacement and price. That has to say something.

## HE RECORD



JULIA LAPALME **GUEST TESTER AGE: 34 HEIGHT:** 5'5"

Being an FZ-09 owner myself, I went into this comparo expecting my loyalty to lie with the Yamaha. But no! Overall the GSX-S1000 was the most fun and easiest to ride. With a comfortable seat and riding position, saddle time in the Gixxess was painless (can't say the same for the WEIGHT: 135 lb.
INSEAM: 30 in.
too ridged or bouncy, and the Suzuki's engine gave

the smoothest feel. My one gripe was the throttle response, which was a bit touchy for my taste, but a little refinement of rider input is a minor adjustment to make. All in all, the GSX-S1000 came out on top in my book, but don't tell my FZ-09.



ZACK COURTS ASSOCIATE EDITOR AGE: 32 **HEIGHT**: 6'2' WEIGHT: 185 lb. INSEAM: 34 in.

What are you going to do with your naked bike? Trackday? Get a GSX-S1000, no question. Relaxing Sunday rides in good weather? You need a CB1000R. Looking to stand out in a crowd and you don't mind near-rigid suspension? Z1000 all the way. For me, I'll have an FZ-09. Yes, the suspension is too soft, and when someone as adept with motorcycles as Ari

Henning spends months trying to fix it and comes up short, you know it's not going to be easy to address. Still, I'd have the FZ. I want that buttery-smooth engine, I want the light weight, and I don't care about ABS and traction control. It's an amazingly fun bike, at an even better price.



MARC COOK **EDITOR IN CHIEF AGE**: 52 HEIGHT: 5'9" WEIGHT: 190 lb. INSEAM: 32 in.

This comparison reminds me that just because a bike isn't the newest thing doesn't mean it can be ignored. True, the Honda CB1000R has been around a long time and lacks technical features. And yet... it's a truly good motorcycle, in many ways my favorite here. It feels so balanced, so refined, and just so well executed that I'm feeling a little guilty for not recommending Honda's naked more often.

But I'd still put another bike at the top of the list: Suzuki's GSX-S1000, mainly because of horsepower, but I also like the riding position and features. I can almost ignore its crummy throttle response.

No dials, no needles, no problem: All of the bikes display a good array of information. The tachometers on the Kawasaki (middle right) and Yamaha (far right) were the hardest to read. Then again there's too much torque on tap to bother flirting with the upper rpms. Note the Honda's oddly tinted display cover (far left) and the Suzuki's prominent gear position indicator (middle left).











#### TAKE YOUR PICK:

What we learned in this test is that your intentions matter most. These bikes are all good in certain ways, and subjective opinions among the testers were as varied as the bikes. The FZ-09 stands out as a new-age way to build a naked; the entire machine was developed for this specific cause rather than a repurposed engine and chassis, and the result is a boisterous and nimble motorcycle. But whether you choose the rowdy FZ-09, flashy Z1000, eye-opening GSX-S, or the ultimately refined CB1000, ride proudly. These bikes are cool, and you'll get excited every time you open your garage.

#### HONDA CB1000R



### SUZUKI GSX-S1000



#### KAWASAKI Z1000



YAMAHA FZ-09



Here again, Yamaha's FZ-09 is the outlier. Notice the extra legroom, a handlebar that is noticeably taller and closer to the rider, and a flat seat that provides a little more room to move around. The other three are very similar, with only the Kawasaki's low handlebar separating them. Suzuki's GSX-S1000 created the most smiles when it came to comfort, especially the nicely padded and well-shaped seat. An oddly shaped piece of hard plastic on the back of the fuel tank was the only real complaint about the Honda's ergos.



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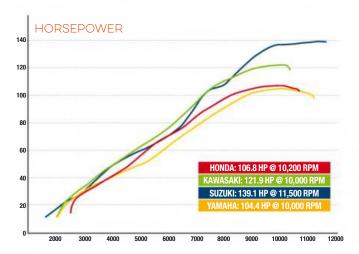


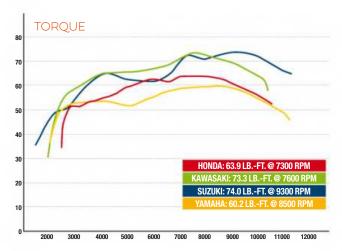












You could argue that the Honda's curve is the biggest disappointment here. The CB's power is as linear and smooth as you like, but 107 hp from 999cc is pretty soft nowadays. These curves should illustrate why we raved about the Suzuki's top-end rush and why it feels a little sluggish down low (the GSX-S doesn't catch the Z1000 until around 4,000 rpm), but power delivery never feels as lumpy as it looks in the chart. Yamaha's 847cc triple is obviously down on outright power but stacks up surprisingly well against the fleet of literbike competition, especially when you consider how much lighter the FZ-09 is than the rest of the group.

ECH SPEC	HONDA CB1000R	KAWASAKI Z1000	SUZUKI GSX-S1000	YAMAHA FZ-09
PRICE	\$11,760	\$11,999	\$10,499	\$8,190
ENGINE	999cc, liquid-cooled inline-four	1,043cc, liquid-cooled inline-four	999cc, liquid-cooled inline-four	847cc, liquid-cooled inline-triple
BORE X STROKE	75.0 x 56.5mm	77.0 x 56.0mm	73.4 x 59.0mm	78.0 x 59.1mm
COMPRESSION	11.2:1	11.8:1	12.2:1	11.5:1
VALVE TRAIN	DOHC, 16v	DOHC, 16v	DOHC, 16v	DOHC, 12v
FUELING	EFI	EFI	EFI	EFI, ride by wire
CLUTCH	Wet, multi-plate	Wet, multi-plate	Wet, multi-plate	Wet, multi-plate
TRANS/FINAL DRIVE	6-speed/chain	6-speed/chain	6-speed/chain	6-speed/chain
FRAME	Aluminum backbone	Aluminum twin-spar	Aluminum twin-spar	Aluminum twin-spar
FRONT SUSPENSION	Showa 43mm fork adjustable for spring preload and rebound damping; 4.3-in. travel	Showa 41mm fork adjustable for spring preload, compression and rebound damping; 4.7-in. travel	KYB 43mm fork adjustable for spring preload, compression and rebound damping; 4.7-in. travel	KYB 41mm fork adjustable for spring preload and rebound damping; 5.4-in. travel
REAR SUSPENSION	Showa shock adjustable for spring preload and rebound damping; 5.0-in. travel	Showa shock adjustable for spring preload and rebound damping; 4.8-in. travel	KYB shock adjustable for spring preload and rebound damping; 5.1-in. travel	KYB shock adjustable for spring preload and rebound damping; 5.1-in. travel
FRONT BRAKE	Tokico four-piston calipers, 310mm discs	Tokico four-piston calipers, 310mm discs with ABS	Brembo four-piston calipers, 310mm discs with ABS	Advics four-piston calipers, 298mn discs
REAR BRAKE	Tokico two-piston caliper, 256mm disc	Tokico one-piston caliper, 250mm disc with ABS	Nissin one-piston caliper, 220mm disc with ABS	Nissin one-piston caliper, 245mm disc
FRONT TIRE	120/70ZR-17 Bridgestone Battlax BT015	120/70ZR-17 Dunlop Sportmax D214	120/70ZR-17 Dunlop Sportmax D214	120/70ZR-17 Bridgestone Battlax S20
REAR TIRE	180/55ZR-17 Bridgestone Battlax BT015	190/50ZR-17 Dunlop Sportmax D214	190/50ZR-17 Dunlop Sportmax D214	180/55ZR-17 Bridgestone Battlax S20
RAKE/TRAIL	25.0°/3.9 in.	24.5°/4.0 in.	25.0°/3.9 in.	25.0°/4.1 in.
SEAT HEIGHT	32.5 in.	32.1 in.	31.9 in.	32.1 in.
WHEELBASE	56.9 in.	56.5 in.	57.5 in.	56.7 in.
MEASURED WEIGHT	484/457 lb. (tank full/empty)	488/461 lb. (tank full/empty)	464/437 lb. (tank full/empty)	416/394 lb. (tank full/empty)
FUEL CAPACITY	4.5 gal.	4.5 gal.	4.5 gal.	3.7 gal.
FUEL ECONOMY	43/36/40 mpg (high/low/average)	38/32/35 mpg (high/low/average)	44/34/40 mpg (high/low/average)	47/37/42 mpg (high/low/average)
RANGE	180 mi. (including reserve)	158 mi. (including reserve)	180 mi. (including reserve)	155 mi. (including reserve)
CORRECTED 1/4-MILE	11.51 sec. @ 120.4 mph	11.18 sec. @ 125.5 mph	10.74 sec. @ 132.5 mph	11.39 sec. @ 122.2 mph
TOP-GEAR ROLL ON, 60-80 MPH	3.3 sec.	2.8 sec.	2.9 sec.	3.5 sec.
WARRANTY	36 mo., unlimited mi.	12 mo., unlimited mi.	12 mo., unlimited mi.	12 mo., unlimited mi.
MORE INFO AT	powersports.honda.com	kawasaki.com	suzukicycles.com	yamahamotorsports.com

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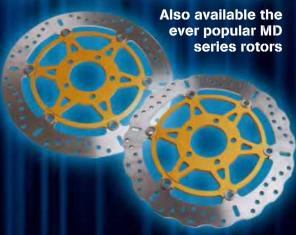
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# WE HAPPY FEW

## A Journey to Sturgis

words: Jack Lewis **PHOTOS:** Ray Vine, Shasta Willson



Welcome home to America, where we'll all feel fine when Johnny comes marching home. Celebrating the ride— and the men and women who gave for their country.



f a man is judged by the company he keeps, then I choose to associate with riders and soldiers, the free and the loyal. This past August, those choices fused during the inaugural Veterans Charity Ride to Sturgis.

Veterans Charity Ride 2015 was sparked last year by two former Arctic paratroopers. "Indian Dave" Frey and "Johnny Reno" White were riding separate paths to Sturgis when they met over mutual bike admiration, bonded over service stories, and decided to make a difference.

Johnny and Dave resolved to introduce warriors, who had seen and done things abroad you mightn't care to hear described, to the rolling vistas of their own homeland. If two busted-up grunts could find brotherhood on a bike trip, they could scale up the concept. Dave and John know about dark times, hold fast to tradition, and understand the redemptive power of open-road riding.

They decided to pitch sponsors, integrate veteran charities, raise public awareness, and produce the ride of a lifetime for disabled military veterans. They would create the Next Great Tradition to remind Americans that broken vets aren't rubble but building blocks.

Training ain't where the hard part ends, and combat isn't either. Your reward for survival is adapting to the hallucinatory reality of non-operational life—a reality never made easier by surgeries, amputations, or the demons who preach guilt.

Isolation is lethal. When brotherhood falls away, we lose more strong Americans than any enemy can take.

Thereby a baker's dozen "Veteran Riders" found ourselves waiting in a banquet room at the Burbank Marriott, combat-loaded with road swag. Boisterous as off-leash puppies, our dinner conversation was less wary circling and more capering,

wagging, and sniffing. In a fraternity never joined by accident, convenience, or deception, trust was preinstalled. Everyone present got cheerfully punked for their service affiliation, bike brand, looks, skills, and lineage.

Rider cultures varied widely. Some came from bike clubs with colors and cuts, others from independent road riding. Some were mostly dirt, and a couple had barely ridden real miles. I might have been the only rider without a nickname. Our road captain went by "Trouble," and she looked it.

We had Wyakin Warriors. We had Purple Heart Riders. We had amputees and brain injuries, straight bikes and sidecars. We had Californians and Idahoans, Marylanders and Alaskans, Mexicans and Texicans, squids and zoomies, paratroopers and jarheads. Our motley band was bound only by the urge to ride and our unforgotten, unexpiring oath.

Robert Pandya of Indian Motorcycles explained their sponsorship. "Everything we do with this brand," he said, "gets measured against history. We're standing here in what's absolutely going to be the 'Next Great Tradition.' We're going to Sturgis." Pandya paused. "We wanted to put you guys on Indians so you can find your bikes in the crowd."

We bused out to pick up bikes the next morning to the soundtrack of a training range run as we traded monstrously offensive amputee jokes and other off-color slights. Cognitive dissonance rattled merrily between "this is truly not okay" and "these are my people!" They might not be your people, but they are your veterans. Jumpmaster Josh, who took an amputation above the knee in Afghanistan, summarized our banter with, "Any civilian overhearing this would need penicillin." We're not the easiest minority to tolerate.







In a rare moment of rest, Princess Thunderjugs cools her gleaming fins.



Nosing into an industrial complex, we debarked near a steel door that rolled up to reveal a motorhead heaven so enticing that we barely noticed its proprietor until he flashed his trademark crooked grin, gesturing toward the bikes.

"These are the Indians," Jay Leno said, "and obviously you guys are the cowboys." Every Veteran Rider promptly volunteered to staff Leno's security detail for no pay.

Everything Jay owns runs. He can crank up any rig in any building-except his 1940 Indian Four sidecar rig, which had a headache that day. When the big Four finally coughed to life, we followed Jay to a firehouse where full-dress firefighters, the LA Fire Hogs, Patriot Guard, and VFW Riders formed an honor guard. Hard not to feel a chill as our weaving, bobbing contingent pulled into the firehouse and heard "hand...SALUTE!"

Holding his Captain America-painted prosthesis high above Leno's sidecar. Jumpmaster Josh silently returned their salute. Firefighters and cops and riders and service members share the kinship of risking everything for others. For the same reasons that travel is broadening and craft is deepening, there's either shared understanding or none at all.

Barstow has ever been an oasis one travels through, not to, and an hour-long wait at In-N-Out wasn't in our plans. Barstow was where I learned about amputees' propensity to overheat. "Our bodies make the same amount of blood," my passenger Gunny Glen explained, "but we don't have the cooling area."

Inside, Trouble marched to the front of the line, firmly explaining that a dozen

## "Over dessert following barbecued steak, the bravest man I've ever met gave a humble, clear-eyed address."

disabled veterans in the parking lot needed service. Wordlessly, they passed out sacks of burgers and stacks of cups until she told them to stop. We were in 'n' outta there in 20 minutes, burning up the highway toward Las Vegas.

In startling contrast to a day spent broiling in the Mojave, our little motorcade of a dozen bikes and a pair of hacks was ushered down the Strip by Nevada's finest. Parading carousel horse Indians through Vegas with a police escort felt like we'd oozed into Salvador Dali's urban planning model. What happens in Vegas stays in Vegas and so did a couple of our guys, but they caught up later. Leave no hangover behind!

We gained two noobs in Vegas. Shane was a husky jarhead medevac'd from Al Anbar, Shawn a boyish 31-year-old who lost a leg and thumb to a Ramadi IED. Both were worryingly quiet.

With plenty more desert to unroll, we spent several hours or a month doing it. Holding down a drop-dead gorgeous, Willow Green and Ivory Cream Indian Chief Vintage with buckskin seat and panniers and a color-matched Champion Vintage hack, Glen and I rumbled across endless scorched acres looking like an antique parade float fired from a potato gun. For the whole trip, our Vintage

burned zero drops of oil, even while pulling long grades at 80 mph in fourth gear, day after day at more than 100 degrees Fahrenheit (henceforth known as "melting the ton"). I go 225 pounds in gear, and Gunny Glen-even with assorted missing parts—is bigger than me. With a couple hundred pounds of sidecar and a camel's worth of water, our Thunder Stroke 111 twin weighed in like a sports car...and returned the mileage to prove it.

Lacking a tank upsized to her avoirdupois, "Princess Thunderjugs" became our canary in the endurance mineshaft. Three fuel stops in, Glen took charge. "Hey, brother," he yelled to a VFW Rider, "are you going into the store?" We soon sported a 2-gallon fuel can bungeed to our luggage rack, where it loomed ominously above Glen's razored pate.

"You cool with that?"

"No prob'm, bro." He grinned. "I've been blown up before."

"Hey, me too." We fist-bumped. "You still got your legs."

"Well, yeah." I considered my next words carefully. "There was a Marine with me."

Glen nodded. "Solid choice." As Princess TJ clawed into the

hills, Glen made a rare tactical error by

Somewhere out on a Colorado highway, "Max" left a few things behind to make room for his future.





assenting to flying the car. Thenceforth I banged his butt onto the pavement every third turn or so, but the man grinned like a Spanish pirate every time our big, green vessel made steam.

No war or marriage or desert lasts forever, and we eventually landed in Hurricane for ribs-with-everything at Sonny Boy's Barbecue. Several veteran riders were treated to helicopter rides through Zion National Park, and Glen vacated the hack to make way for Shane.

I didn't know much about Shane, only that he'd experienced personal struggles and a number of surgeries since Iraq. Not a word did he say as we jounced along on our tricorn motorbike, just nodding silently when I yelled status updates. I worried down the road beside him, wondering what he was getting from this. That evening, Shane flew out to care for his father, hospitalized by a stroke.

Bag on shoulder, Shane uncorked. "I forgot how amazing it is," he said, "just to get out on a bike. It's like you can just let everything go. I sold my Harley when my injuries caught up with me. I really gotta get another bike."

From Bryce Canyon Pines Motel, we tracked Highway 12 to Henrieville (population: 159) where we met Korea vet Norm Davis, the man responsible for installing a huge United States flag high on a red ridge to silently inspire precisely the kind of passersby we happened to be.

Jumpmaster Josh stayed in everybody's face, smokin' and jokin' and carryin' on while Glen stomped around motivating the troops, but we worried about our other silent observer. "Shawn's not really talking," Glen said. "Let's get him into the sidecar." Tasking Shawn with chairborne photography, I discovered the one-thumbed bastard shoots steadier with a smartphone from a jiggling sidecar than I manage with a Nikon on a monopod.

Continuing northeast to Crescent City along Interstate 70, we picked up another police escort up the Colorado River. At Red Cliffs Lodge, we bellied up to a cowboy supper. Afterward, Highway Patrolman Roberts borrowed a Chieftain and widened our eyes with a bar-swinging, board-banging gymkhana. Asked what he thought of our rolling stock, the former motor officer laconically replied, "Clutch is real smooth."

Knowing you can't properly visit Canyonlands without playing on rocks, chief sponsor Indian arranged a buggy sprint across Moab through High Point Hummer and ATV. Common sense was discarded, both by drivers and by whoever thought it wise to turn us loose in whip-quick Polaris RZR carts.

We had an uncommonly good time. RZRs have advantages over dirt bikes. One is they carry more water than camels. Another is that damaged drivers can operate them with gleeful abandon. Glen and I jumped into a two-seater, gunning up the first "quit or go" spine with terrible joy. Although we never quite biffed, every piece of video we shot looks like sky, rock, sky, rock, dirt, sky, TREE! Transformed from cold-eyed

professionals to harmless delinguents. we sported down arroyos like otters and over cliff ledges like lemmings. When I get too old or too broken for motorcycles, I'm getting an RZR so I can load up my grandkids and terrify their parents.

Over dessert following barbecued steak on Red Cliffs Lodge's huge patio overlooking the oxbow, the bravest man I've ever met gave a humble, clear-eyed address. Gunny Glen described stepping on a 20-pound shaped charge that took his leg, penis, and testicles and tore him open to the sternum—then he gave equal weight to the long, dark tunnel of invisible wounds. Glen emphasized the lifesaving value of human connection. He talked about how veterans need to have each other's backs. He talked about staying in the world, not in your room.

With the Pentagon considering adoption of his suicide-prevention program, this isn't new ground for Glen, but that speech is courageous every time. I already knew what his injuries were and still winced, but Glen flinches at nothing. As he described the duties of fraternity, though, Trouble silently left the table with her eyes overflowing. When it's your brothers who wounded you, it's hard to find answers in brotherhood.

I couldn't wait to fire up Princess T-jugs the next day and wind through the Colorado National Monument with Shawn mounted sidesaddle. Somewhere along the road, he'd transformed from introvert to poster boy and now, perched jauntily on the lip of a sidecar, Shawn granted a Steve McQueen-style interview to the TV



Veteran and author Sharon D. Allen may or may not have shown Jack her fresh Sturgis tattoo.



reporter who rode a short way with us.

"In the past, you read a lot about Vietnam guys who never got a lot of support," Shawn said, reminding the reporter (and all of us) how far this society has progressed. "It's good that people care and support what we went through. It says a lot about the country."

We then returned to enjoying said country. The ensuing few miles unrolled like Mr. Toad's Wild Ride. I slewed lefts like an autocrossing shopping cart. winding around 270-degree righthanders with Shawn's sidecar loitering overhead like a Warthog on station, but no such shenanigans ever fazed my monkey. Shawn's way past being scared of anything that doesn't echo out of his own head. Like all of us, his head got straighter as the road got more crooked.

An afternoon break in Craig, Colorado (population: 9,464) lured platoons of citizens to VFW Post 4265, where they'd laid on snacks and cold drinks and a pumper truck for us to climb around on with the kids. Whether a small town confines or embraces depends entirely on who you run into. We encountered the best of America and were deeply pleased to find they thought the same of us. Chatting with the leggy sister of a post member, I mentioned we'd all only met a few days previous. She watched us grinning and laughing, slapping backs and dunking bandanas, Cycle Gear cooling vests, and our salty heads into the ice trough and said, "You've gotta be kidding. You guys act like family."

During supper up the road, a folk rock duo played lively background to freedrinking, free-thinking women who looked just the way you'd expect midsummer Coloradans to look, but logistics at Hahn's

"We collapsed into our sponsor's embrace like a tired hit team stumbling into the chow hall, while all around us Sturgis cranked and wheezed like the Devil's own steam calliope."

Peak Roadhouse were shaky. Glen ended up one-legging it a quarter mile back across a potholed field, while Shawn and Jumpmaster Josh shared a cabin with a ladder loft. Josh glanced down at his T-shirt reading, "Jiu-jitsu makes us all equal," then tossed up his artificial leg and swarmed after it like a jack-tar up ratlines.

Tucked quietly into ridgetop Wyoming forest, our next overnight offered the chance either to loop through Laramie traffic or save 65 miles by nipping up a 9-mile dirt road. Locals advised going through town. Naturally, we chose gravel busting. About to experience his baptism of dirt on 900 pounds of corporate-fleet Roadmaster, DI Doober looked a little nervous.

"Don't worry about it," Indian Dave said. "Just go slow, stay off your front brake, and countersteer."

"Countersteer?" Doob asked. "Even in the dirt?"

"Especially in the dirt."

War face screwed on. Doober called on 0311 resourcefulness and made that road his checkpoint. Our cutoff road cacophony included belt squeaks and suspension bottoming but no bent bikes or bitching. Any rider struggles along the way were mitigated by a quiet tip, an encouraging word, or the weapons-grade sunburst of Doober's newly discovered peace grin.

It felt good to raise a few goosebumps

on our first chilly morning, motoring back toward interstate travel under cautionary Wyoming reader boards blinking: "LOOK TWICE—SAVE A LIFE—MOTORCYCLES ARE EVERYWHERE." So are vets, I thought, but most never get a chance to purge their tanks like this.

I wondered what I'd do about that. I wonder, also, what you'll do about that.

No one ever musters the words to do the Sturgis Motorcycle Rally Black Hills Classic justice, but our group's welcome to this annual biker Brigadoon (non-rally population: 6,627) rivaled Times Square on VE Day. For a town one-tenth the size of the Alamodome, suddenly overrun by Sunday bikers with \$20 million burning a hole in their pockets, it was shockingly civil. Open pipes, tat cuffs, and slogans of prepackaged rebellion belied the gracious gentility of a topless retirement community.

Situated cheekily astride Harley-Davidson Way, our sponsor's plaza exhibited new Indians, antiques, Victory bikes, and Slingshot three-wheeled sports cars. They had hill climbers and bikini models, co-branded Jack Daniels bars, patch booths, performance clinics, and the obligatory numberless varieties of swag. We collapsed into our sponsor's embrace like a tired hit team stumbling into the chow hall, while all around us Sturgis cranked and wheezed like the

Devil's own steam calliope.

Prearranged VIP access transformed the high-capacity thunderdome of The Legendary Buffalo Chip into a true promised land of wristbands and lanyards; drink tickets and gimme caps; and wriggling, snuggling, dazzling girls ad-wrapped in tiny bikinis and wide, bright smiles. Campsites were patrolled by supercharged V-twin bar stools, cartloads of wobbling flesh, and a GoPro bolted into shaven skull inserts.

Despite complaining that his hips weren't as loose as they used to be, Jumpmaster Josh danced better on one leg than I manage on two, charming a succession of ladies at the Full Throttle Saloon who laughed, bought him drinks, and whispered in his ear. I'm not claiming Josh's savoir faire or his admirers' hotness actually caused it, but the Full Throttle burned to ashes shortly after our visit.

Indian Dave had improved our transport logistics by liberating a 4x4 Polaris Ranger from the official Buffalo Chip fleet. That afternoon, I dropped copies of my book *Head Check* at the Indian dealer on foot, pillioned out to The Legendary Buffalo Chip to pick up our Ranger, and then settled into their air-conditioned, snack-rich, Wi-Fienabled, open-bar press lounge.

You think you've done Sturgis? You ain't done Sturgis 'til you've rode bitch down Main before rock-starring it in the mojo lounge.

Now a designated driver, I rangered Josh and the boys back to the ranch well after midnight, making precisely 44 governed mph northward up the highway shoulder. Sporting Liberty wraparound shades in lieu of a windshield, without taillights or turn signals, hooting like gibbons and flashing random gang signs at confused bikers, we fit snugly into the ambient weirdness.

Teamwork is inimical to secrecy and vice versa. Although Jumpmaster Josh defiantly raised his kilt to the world, there weren't any surprises there. To the soldiers and Marines in our room that night, drunk, tired, and in pain, he shared the only secret that mattered.

"You know I love you guys."

Gunny Glen answered him first, not in his parade ground voice or a joking tone. "Love you too, brother." Inter-service rivalry at its finest.

Opiates are nightcaps. Our morning prescription was Batdorf & Bronson coffee. Back in rowdy character by



And I looked, and behold a pale bike: and her name that sat on him was Trouble, and Indian Dave followed with her. And power was given unto them over the Black Hills of South Dakota, to join brother to brother, sister to sailor, soldier to airman, and jarhead to the roads of that land.



TORCY CLEANING TO THE PARTY OF THE PARTY OF

breakfast, our Jumpmaster slurped down quarts of it while he planned a thunder run through downtown bars.

"Looked like you were feeling no pain last night," Trouble said. But Josh wasn't feeling no pain. He never isn't. Raunchy jokes and MMA sparring, dancing, fighting, and airborne jumps: It's all him, but it's all a facade too. In line units, that's the suit you wear to work, and Josh remains active duty, running on pure attitude, unstoppable as Voyager 1.

Nights at the Black Hills Classic mandate epic levels of abandon. Our group was no exception, wading headlong into the unquestioned delights of sinuous bartenders, cage fights, impulse tattoos, massages, and live music ranging from grindbar to Social Distortion's "Ring of Fire" to John Fogerty live on the Wolfman Jack stage.

Warm raindrops sheeted over the crowd as Fogerty slashed out his

full-throated rendition of "Who'll Stop the Rain." I looked and I saw that under the rain, the race is not to the swift, nor the battle to the strong, but time and dance happeneth to us all. Josh's face blazed under the kliegs, Glen perched a Coke and a Midwest buffy on his upturned prosthesis, and Doob's grin blazed back at the stage like the world's happiest return fire.

That was the first time I saw an untroubled smile on our road captain. She threw up her arms and raised her face to the sky, trading her tears for rain and her memories for comradeship. We're her brothers now.

We weren't done. There were more things in heaven and Sturgis than are dreamed of in bike rags, from throttling our big road Indians around the local flat track to horseback barbecues to marshaling the Buffalo Chip Freedom Celebration Ride. We stood rounds in rotation, vouchsafed our stories, and signed each other's helmets. Two of our guys won all-expense-paid bike trips, another pair completed an IBA Saddle Sore, and I scored a dance with Pandya's earthy sweetheart, Elnora.

By then, though, we'd already found what we came for.









Clockwise from top: How's that for a color palette? Yes, that's an actual Tommy Gun. Periodapproximate lights look perfect here. The Scout's fourcam engine is stock except for a coffeecan air filter and Indian-brand accessory pipes. Klock-made solo saddle is a handsome one-off.





hen Indian Motorcycle and USO reps approached Brian Klock, founder of Klock Werks Kustom Cycles, about building a one-off showbike for their Scout Inspired Custom Series, Klock knew exactly the direction he wanted to take.

"I've done wild custom builds." Klock said. "But with this project I wanted to reach back to the old, great iron horses of the day. That didn't mean we'd necessarily revert to old-school controls such as a hand-shift setup and so on. I'd be starting with a new Scout, and that alone would give this bike a 'today' kind of look. Also, I wanted this to be an 'everyman' bike and make it easy for the average owner to build one for himself."

To kick things off, Klock and his team covered the shop walls with all the images they could find of WWII military bikes so they could soak in the look and feel of these period machines. Common components soon emerged. Elements that would go on the project bike: windshield,

floorboards, wire wheels, leather saddlebags, rugged-duty tires. And Klock purposely chose standard-stock Indian/ Polaris parts for all these needs, albeit sometimes with a little helping hand. The Indian Chieftain floorboards, for example, were fit up with adapters Klock Werks now offers for sale as a kit. A race-style tire groover gave the stock Indian tires a more rugged, industrial-style countenance, and the standard Indian Scout windscreen was swathed in leather shielding as per common wartime fitment.

Other eye-catching items developed for the build have become Klock Werks accessories, such as the curvaceous, old-school-look Klassic front fender and the period solo seat. And as with all custom jobs, other items were secured from existing aftermarket sources, such as the hot-rod-shop taillights that are of a design common to the era. But hightech aids also lend a hand in the form of the shock covers and a few other tidbits created as rapid prototype printed parts,

which were then painted matte green along with the other major parts by Brad Smith and The Factory Match shop.

And, yes, that is a genuine Thompson "Tommy gun" resting in the heavy saddle-leather scabbard. This rifle, however, is a legal, semi-auto only rifle from Auto-Ordnance, not fully automatic. But it's adorned with a very special walnut wood stock laser-engraved by Boyds Gunstocks—a nearby neighbor also located in Klock Werks' hometown of Mitchell, South Dakota, With the Indian Motorcycles logo on the left side and the USO emblem on the right, it's a fitting way to cap off this splendid build.

"With this bike I wanted to pay tribute to our brothers and sisters in the military. who put their lives on the line for our country," Klock said. "Hopefully I've done that. It's certainly been an honor for me to be a part of this project. And when you're at a show, and an old veteran comes up to you and says, 'I rode a bike like this in the war,' I tell you what-that's pretty humbling."





Honda's 1975 CB400F only lasted three years. But as Japan Inc.'s first real sportbike, it heralded the rise of a powerful category.

words: Mitch Boehm / PHOTOS: Drew Ruiz

THE 400 FOUR.

Sportbikes and weight-saving engineering weren't common in the '70s, which made Honda's high-revving 400F—with lightweight 4-into-1 exhaust—a bit of an

ost of the market trends and technical innovations in our amazing sport have some interesting historical roots. Take production-spec inline-four engines and disc brakes, for instance. Where did they first appear? On Honda's mighty CB750, of course. How about the Japanese-built custom? Kawasaki's 1977 KZ900 LTD gets the nod. Or monoshock-equipped motocrossers? Yamaha's mid-'70s YZs had it first.

But how about the bedrock material upon which the Universal Japanese Sportbike is comprised: sporty, low handlebars, rear-set footpegs, and a lightweight, racing-style exhaust? The 750 Four didn't have the goods, nor did Kawasaki's shrieking H1s and H2s, or even the magnificent '73 Z1. Yamaha RDs, so amazingly popular in the 1970s, came with high bars and silly, forward-mount pegs that threatened to toss you off if they grounded.

Nope, none of them is the one. But if you look back and identify the very first production Japanese motorcycle with the hardware and aesthetics of a truly modern sporting machine, the bike that led more or less directly to the 16-valve CB-Fs, VFs, VFRs, and CBRs (as well as to GSX-Rs, Ninjas, and YZFs), Honda's 1975 CB400F Super Sport is that bike.

That's not to take away from the CB550F and CB750F Super Sports, which debuted that same year and made Honda a somewhat surprising player in the thennew proddie café racer/sportbike category. They, too, had some of the 400F's sportbiased engineering and aesthetics. But it was the sleek, purposeful, lithe, and



downright sexy 400 Four that best exemplified Japan's move toward Euro-inspired sporting machines, bikes like Ducati's 750SS and BMW's R90S.

Like the 550F and 750F, the CB400F was built upon the carcass of an existing product—in this case the technically interesting but thoroughly unexciting CB350 Four. Cycle magazine described the 350F as "a reply to a guery never raised—unless one wanted to know how few cubic centimeters Honda could split by four." Charming, sophisticated, and polished the CB350 Four may have been. Exciting it was not.

To boost the 350F's performance and persona to attain what designers were after with Honda's new sporting middleweight, the R&D team went to work in late 1973 on the 350F's engine and chassis. As an answer to a question no one had asked, the 350F didn't sell particularly well and didn't fire the imaginations of a great many enthusiasts. But its engine—an air-cooled, 347cc four with a then-unreal redline of 10,000 rpm—was a marvel of compact engineering and provided engineers a fine place to start.

With the 350F making less than 30 hp, the primary goal for the 400F was power

production—and the more the better. especially with the rapid Yamaha RD350 to compete against. Out came the boring bar, and a bore increase of 4mm, from the 350F's 47mm to the 400F's 51mm, which yielded a total displacement of 408ccwhich explains the bike's "408" nickname after its launch. The larger bores necessitated a redesigned cylinder head and new pistons, and while engineers were there, they also added slightly larger valves for increased breathing capacity while keeping the 350s mild cam to move them. Compression from the new pistons and combustion chambers went up fractionally, from 9.3 to 9.4:1.

Carburetion remained status quo, 20mm Keihins, though the 350F's heavy 4-into-4 exhaust was binned in favor of what would become largely de rigueur in the coming decades for sporting motorcycles: a 4-into-1 exhaust. And a beautiful thing it was, too, the four chrome pipes exiting the jewel-like cylinder bank and swooping dramatically to the right, finally gathering at a lovely, angled collector just below the right peg. Aft came a beautifully tapered megaphone, which looked just right. If any one component defined the

400 Four, it was that exhaust.

Belowdecks. Honda added a sixth gear-which necessitated new crankcases—and a sturdier clutch to handle the added power. Redline remained a giddy 10,000 rpm, though post-release testing showed it could be revved safely to 10,500.

Chassis-wise, changes were limited to a revised fork with uprated damping and a new swingarm assembly that, curiously, had passenger pegs attached. One imagines this was done as an afterthought, as passengers were certainly way down the bike's priority list. (Or maybe, as cynics have jokingly suggested, the design was meant to buttress the rear suspension.) The steel-tube frame was basically a 350-spec piece, which held the wheelbase at 53.3 inches, 4 inches shorter than a CB750's. (Even Honda's current CB500F twin, not exactly a large bike, has a 55.5-inch wheelbase.) This was definitely not a tourer.

The tank, seat, and side panels were all new and together gave the 400F a serious and sexy look, especially with the bike's stunning blue or red paintwork options. Luckily, stylists eschewed chrome badges and foofaraws on the panels and tank, staying with decals. Of course, a



## "Even at rest the 400F had a sporty appearance, and just staring at the thing made back-road fans woozy with lust."

good portion of the 400F's aggressive. purposeful look came from its narrow and low handlebar and sporty, rear-set pegs. Even at rest the 400F had a sporty appearance, and just staring at the thing made back-road fans woozy with lust.

The 400F debuted in late '74 in Cologne, Germany, to big-time excitement, with European enthusiasts and journalists alike loving both the idea and the execution. Production began in December of '74, with availability scheduled for Europe, Japan, and North America. American Honda signed up for a load of the things, some 38,000 units in 1975 alone, which indicated how confident Honda Japan and its US importer were that it would be a success.

That excitement was palpable early on in the US, both from an enthused press corps and a particular segment of the riding public starving for something sportier than the café racer customs they'd been building to satiate their twisty-road

intentions. The question was, just how many of these customers were out there? Honda, by importing so many 400Fs, and also offering the 550F and 750F, was betting there were enough.

For the most part, the US press wrote glowingly about the 400F. Negatives were limited to a few items: not enough rearward bend in the handlebar. Unsophisticated suspension. A slight lack of cornering clearance (with heavier riders) on the right side. Some minor coldbloodedness. The swingarm-mounted passenger pegs. A bit of driveline lash. And not as much power as the dominant Yamaha RD. Otherwise, editors loved it.

"Put bluntly," Cycle wrote, "[the CB400F is] really fun. In this case, Honda's lustrous detailing does not brighten up a pale, lifeless motorcycle. The CB400F is a marvel: it handled remarkably well, has sufficient cornering clearance, stops with authority, snaps through corners precisely—and

motors along smartly. The bike feels all of a piece, as if a hundred separate design systems fell into perfect synchronization. The CB400F has character."

"It's light, maneuverable and silent," wrote Motorcyclist Editor Dave Ekins for our April '75 issue. "It's so quiet all you hear is the gentle whine of the gears-inlet and exhaust noise is almost non-existent. This is the coming of a new kind of motorcycle, fast, silent, and fun."

Unfortunately for Honda, consumers were less enamored, especially those in middle America, where the café racer/ sportbike thing hadn't yet penetrated the riding public's consciousness. In Peoria the bike's riding position was deemed cramped, and because passengers and touring fairings didn't really mesh with the bike's MO, many potential buyers passed.

More damning was the performance gap. Although the 400F was a full second quicker in the quarter mile than the lethargic CB350F, it was nearly a second slower than the hot-rod RD350 Yamaha, which was also more than 50 pounds lighter-and a racetrack weapon right out of the box. Kawasaki's 400cc S3 two-stroke triple was also faster point to point, and the fact that the 400F was a bit quicker than Suzuki's chubby GT380 did nothing to

## ROOTS







balance the performance scales. On top of it all, the 400F was a couple hundred dollars more than its direct competition, and with engine performance and weight already going against it, it was often a hard sell.

"I sold CB400Fs and RD350s and 400s side by side for a few years," remembers Jack Seaver, who worked at two dealerships in the Washington, DC, area in the mid-1970s. "The CB400F was a beautiful and superbly pieced-together machine, the Swiss watch of motorcycling, really. It took your breath away to look at it, and it functioned really well. But the people who gravitated toward the café racer-styled bikes were performance-minded, and all any of them had to do was read the magazines or go watch a club race at Summit Point to know that the RD350 would blow a CB400F into the weeds. And it only got worse when the faster and sleeker RD400 came out in '76. By then, the CB400F was finished. Honda had the look, but Yamaha had the goods. And everyone knew it."

"The 400 Four was a fantastic motorcycle," remembers Bob Troxel, who worked at a Honda/Kawasaki shop in

Wichita, Kansas, from the early '70s on, finally buying place in the early 1990s. "I love the things and have owned a handful. But sadly, it was a bike ahead of its time—a bit too expensive, heavy, and slow, and a bit too early for the sportbike wave, which came later. Still, there are few motorcycles as aesthetically right as the CB400F."

Aesthetics and sex appeal, of course, weren't enough, and in the end, the 400 Four only lasted three years, '75 to '77. The bike appeared in limited numbers (just 6,200) for our bicentennial year, again in red and also in a stunningly beautiful Parakeet Yellow, and then again in '77 (just 4,200 were imported) with a higher bar, conventional footpegs, and some tank striping. This was not a successful strategy on Honda's part: Enthusiasts pooh-poohed the '77 model, while Peoria still wasn't convinced to buy. A year later it was gone, the victim of average sales, not enough power for its class, and, probably more importantly, a fact no one outside Honda knew until years later: Because of the 400F's ultra-high build quality, attention to detail, and four cylinders (and four

carbs, and pistons, and rods, etc.), it cost as much to produce as the company's CB750. And at a retail price of \$1,433, Honda was, at best, breaking even.

The irony here is huge; the very parts and technology that made the 400 Four such an emotionally riveting and functionally excellent motorcycle helped doom it in the marketplace. Of course, the 400F's legacy is plenty rich despite its quick demise. For one thing, it's become a genuine classic over the years, delivering untold amounts of ownership, restoration, and riding satisfaction to thousands of enthusiasts around the globe.

But more importantly, it's what the 400F helped engender that's key. By arguing the case for the purposeful, sporting motorcycle with a low bar and rearsets so firmly and successfully way back in '75, before the bulk of baby boomers (the leading edge of which turned 30 that year) could get their heads around the concept, the 400F had an arguable and heavy hand in kickstarting a trend that would explode during the 1980s—and continue to this very day.



words: Ari Henning

## **GREAT GIFTS & STOCKING STUFFERS**

1 STRIDER 12 BIKE Light up that little one's face this holiday with a Strider pushbike, now available in Honda, Husqvarna, KTM, Harley-Davidson, Yamaha, and Suzuki livery for \$140. Ideal for kids aged 18 months to five years, the Strider 12 (the 12 refers to the wheel size) allows kids to propel themselves with their feet, Flintstones style, and gain early experience on two wheels.

striderbikes.com

## 2 CORTECH SUPER 2.0 LOW PROFILE TANK BAG The latest addition to the 2.0 luggage lineup

offers 5 liters of low-profile cargo capacity. **Need to carry more? Capacity expands to** 10 liters with the pull of a zipper. Available with a magnetic base (\$100) or with a strap-mount setup (\$80), the Low Profile bag is perfect for sport and sport-touring riders.

## 3 RIZOMA ACCESSORIES An anodized piece of machined-aluminum

bike jewelry from Rizoma makes a great stocking stuffer. These swingarm spools (\$41) permit the use of a rear paddock stand and incorporate plastic discs to protect your swingarm from scratches. The oil-filler cap (\$51) has an integrated removable safety wire tab for added security.

rizoma.com

5 MOTION PRO TOOLS Motion Pro has loads of appealing and affordable stocking stuffers. The updated Bead Buddy II (\$15) is like having a third hand when changing tires; a tube of Grip Glue (\$9) is ideal for bonding not just grips but any number of items around the shop; and the Mini Bleeder (\$27) makes replacing brake fluid a breeze.

motionpro.com

## 4 BIKEMASTER

LED TURN SIGNALS
Give the gift of a quick and satisfying project with these compact LED turn signals from BikeMaster. They're available in black, chrome, or carbon-look for \$34 and feature clear lenses with an array of super-bright amber LEDs.

bikemaster.com



## MotorcyclistOnline.com



## C[TESTED]

## TRAX ADVENTURE LUGGAGE

It should go without saying that premium aftermarket hard bags in the ADV theme need to be tough, convenient to use, utterly waterproof, and flexible enough to accommodate the replacement tire your buddy needs. Trax has been serving that market for years, but the latest version, called the Trax Adventure, benefits from a host of refinements. In doing so, it takes what appears to be a familiar design to another level.

Understand this: Even though the Adventure luggage—available as 37- and 45-liter side cases and a 37-liter top box—seem to mimic the old bags' general shape and fit the same quad-pin mounts, there's almost nothing here that's gone untouched. For starters, all the plastic corners are different, not just restyled and strategically fitted with handles and slots for lashing other bags to them, but now they're protective only. Before, the plastic was part of the bags' structure, but now

there's aluminum all the way around, so if you drag the plastic across a rock and crack it you won't breach the bag. The X-shaped styling elements on the outer faces and tops of the side cases are also to give the box improved stiffness. Finally, the plates that mate to the bike-specific racks are reinforced to better handle abuse.

Latches are new too. Although you still need the key to open both the top latches and those that secure the bags to the bike, the structure is new, with a plastic plate behind the locking mechanism for added strength and security. New for the Adventure update are forward hinges that can be unsnapped so you can remove the lid entirely. The lids now feature handles at each end, a nice touch to make handling them off the bike much easier. Those lids also have four tie-down points on the outside along with clever tie-down points inside the lids that accommodate optional bungee nets or zipper-closed inner lid bags. Bag liners are another option, as are specifically designed dry bags that perfectly fit the side case lids. Phew.

I've been using the Trax Adventure boxes for most of the summer on my KTM 990 SM-T, fitted to SW-Motech's quick-release brackets. I've gone on record saying how much I prefer top-loading cases, and the Adventures only reinforced that for me. They swallow a massive amount of stuff—and I had the smaller 37-liter side cases—that's also easily organized for the road. I had the pleasure of passing through several hours of no-kidding rain that never penetrated the new lid seals. In fact, neither did air. If I

packed at high altitude and tried to open the bags near sea level, it was something of a fight to break the vacuum and get the lid open. They'd always give in, but the scene could be comical at a fuel stop.

Trax makes only standard-size boxes; there aren't any with cutouts for high or low exhaust. Because of that, the installation on my 990 was too wide to be lane-splitting friendly, but that's the only serious complaint I have. The total package cost for this installation, including \$325 for the mounts, is just less than \$1,300, which is competitive with other aluminum adventure-style luggage on the market. -Marc Cook





Lots of volume and even a handy bungee for the lid (below) are just a few of the nice things about the Trax boxes. New backing plates for the locks (lower left) make the luggage more secure.



## ADVENTURE HARD LUGGAGE

PRICE: \$480-\$500 per bag, plus side carriers CONTACT: twistedthrottle.com

VERDICT: 8/10

Beautifully designed, impeccably built, priced accordingly.

## **JRI** SHOCK FOR YAMAHA YZF-R3

Yamaha's YZF-R3 is a great small sportbike. It has aggressive looks and a lively little motor, but what it does not have is very good rear suspension. The bike's stock shock is softy sprung and severely under damped, making the little sportbike steer heavy and pogo through corners.

JRi, a suspension company based out of Moorseville, North Carolina, decided to do something about the R3's deficiency. The result is the MC/10 Double Adjustable Remote shock. This made-to-order shock costs \$985 and offers six clicks of compression adjustment on the remote reservoir and 30 clicks of rebound adjustability via a ring at the bottom of the shock body. The lower clevis is threaded,

providing the option to lengthen the shock by as much as 15mm. The JRi is already 10mm longer than stocker, so right off the bat you're working with quite a bit of beneficial rear ride height.

With the bike's rear end suspended on rearset stands the shock bolts up in less than 30 minutes. The R3's subframe doesn't have a convenient place to strap the remote reservoir, so we tucked the canister under the right-side trim cover where it fits neatly. Accessing it to adjust the compression damping is as easy as removing two screws and pulling off the panel.

Thankfully, we didn't feel any need to vary from the shock's factory settings. Tested on the street and at a trackday at Willow Springs, we were quite impressed with how much this one mod improves the Yamaha. The extra ride height pitches the whole bike forward onto the front wheel—improving the riding position, adding cornering clearance, and quickening steering—while the

SHOCK FOR YAMAHA YZF-R3 PRICE: \$985

CONTACT: jrishocks.com

VERDICT: 8/10

A quality, custom-made shock that thoroughly upgrades the R3's handling. stiffer spring and stouter damping keeps the chassis under control during aggressive riding. Ride quality is improved, too, since the JRi shock's more sophisticated compression damping circuitry is better able to cope with hard-edged bumps.

The only downside to the JRi is that the shock's length makes the R3 lean waaay over on its sidestand. It's also a pretty pricey piece to throw at a \$4,990 bike. Thankfully, that last concern is addressed by JRi's new 35Pro shock, which offers adjustable spring preload, ride height, and combined compression/rebound damping for just \$599. Now JRi just needs to design a longer sidestand! -Ari Henning



**ROK STRAPS** 

PRICE: \$22

CONTACT: rokstraps.com

**VERDICT: 10/10** 

A perfect solution to an old problem!

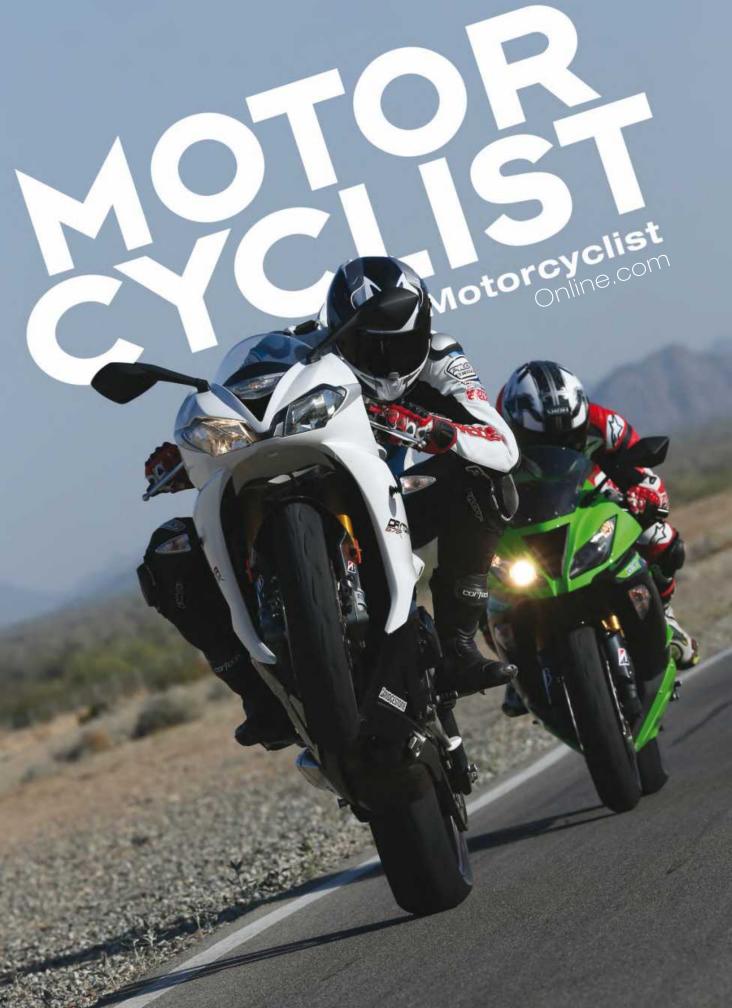
## **ROK** STRAPS

It's a problem that's vexed riders since the term "rider" referred to someone on horseback—how do you strap cargo to your steed? I faced that age-old dilemma when I discovered that my track leathers and boots wouldn't fit in the sidecases of the Ducati Multistrada I was going to ride up to a trackday at Laguna Seca. The Duc has a sizeable rear cargo platform, and I'm pretty handy with a length of rope and a trucker's hitch, but I wanted a cleaner, more secure solution.

That's when I went rummaging through the tote of bungee cords in the MC garage and found a set of ROK Straps. These things are ingenious. This simple combination of webbing, loops, and a length of flat shock cord solves so many problems. The loops easily secure to grab handles or passenger-footpeg brackets (without metal hooks to scratch your paint) and the resilient shock cord squeezes your cargo to keep it in place. To tension the strap you simply pull on the loose end of the webbing, and when it's time to unload your stuff there's a buckle so you can separate the two ends of the strap without removing it from the bike.

ROK Straps come two to a box, and the packaging says the set will secure up to 100 pounds. They secured my leathers, boots, and back and chest protectors wonderfully. Everything remained in place for the entire 400-mile trip up, and when I got to the track I just unsnapped the buckles and unfolded my gear. These 1-inch-wide straps extend to 60 inches, come in a variety of colors, and are just one of a number of sizes and styles of cargo straps offered by ROK Straps.

-Ari Henning





# GARAGE A COMPLETE GUIDE TO LIVING WITH YOUR MOTORCYCLE

70 DRM AND YOUR BIKE

ARE YOU STRESSED?



## RIDE TO BE SMOOTH, NOT TO LOOK FAST

Experienced riders exchange knowing glances when they see an obviously new rider emulating—or trying to emulate—their racing heroes. Knee cocked, elbows out, head down... and a yard of daylight between the footpeg and the tarmac. Don't give the crotchety old riders the satisfaction: Get to a riding school or a trackday and explore the limits of your machine in a safe environment before you start contorting yourself on the street. Practice smooth, efficient cornering rather than trying to look like you're going a million miles an hour. After all, riding well is eminently stylish.

## MC GARAGE→ WTH?



## WHO OWNS YOUR BIKE?

Thanks To DCMA, It Might Not Be You

So you think you own your bike? Maybe. Maybe not. And we're not talking about loan payments and pink slips here. This is about who owns the software loaded into the many computers on your modern motorcycle in charge of your engine, instruments, and brakes. And it might not be you.

In recent years, manufacturers have built legal cases to argue that consumers do not own the copyrighted software in the products they buy-programming that is essential to making modern products operate. Specifically, you should not be allowed to touch the programming without falling on the wrong side of the law: the Digital Millennium Copyright Act, or DMCA. These companies maintain that cracking this programming opens the door to lawsuits and many have indeed sent armies of lawyers into courtrooms over this matter.

In April 2015, Kyle Wiens, the co-founder and CEO of iFixit, wrote an article for WIRED.com entitled "We Can't Let John Deere Destroy the Very Idea of Ownership." In this article, Wiens declares, "It's official: John Deere and General Motors want to eviscerate the notion of ownership. Sure, we pay for their vehicles. But we don't own them. Not according to their corporate lawyers, anyway.

"In a particularly spectacular display of corporate delusion, John Deere—the world's largest agricultural machinery maker—told the Copyright Office that farmers don't own their tractors. Because computer code snakes through the DNA of modern tractors, farmers receive 'an implied license for the life of the vehicle to operate the vehicle."

"It's John Deere's tractor, folks. You're just driving it."

If that sounds like crazy-man talk, consider this: Within days, the John Deere corporate office sent letters to its dealers to try to defuse the situation. It says, in part, "Similar to a car or computer, ownership of equipment does not include the right to copy, modify or distribute software that is embedded in that equipment."

So there you have it. John Deere is applying its corporate muscle to ensure consumers can't access the programming in their tractors because it's copyrighted and it belongs to John Deere, not the purchaser. Other corporations, including trade groups lobbying on behalf of many automakers, have worked tirelessly to make the case to the US Copyright Office that customers who do so infringe on copyrighted programs. In short, they want to lock up this technology.

How did we get here? In 1998, the US Senate unanimously passed the DMCA to extend the reach of copyright law. Much of its intent was to address the special challenges of regulating digital material over the Internet. In this electronic era, access to and copying of a copyrighted work had become easier than ever. To prevent such actions, the DCMA includes language that forbids "anti-circumvention" provisions aimed at stopping copyright pirates from disabling Digital Right Management (DRM) software—embedded code that prevents simple and convenient copying or modification of such files.

American copyright law also entitles the general public to use copyrighted works without securing permission, in ways that don't interfere with the copyright owner's market for a work: the principle of "fair use." This typically covers personal, noncommercial uses. But because of the inherent opposing interests surrounding fair use, conflicts will arise—in our case, is this my bike or your computer programming? In broad terms, the DMCA is supposed to protect the rights of both copyright owners and consumers. But there's no clear-cut dividing point.

Since the 1990s, the number of products incorporating computer software has exploded in scope and breadth, and many believe the DMCA has been deliberately twisted to kill off innovation and competition, rather than to stop piracy. One such group is the Electronic Frontier Foundation, an organization focused on "defending civil liberties in the digital world." They point out that the DMCA has been used to block aftermarket competition in laser-printer toner cartridges, garage-door openers, videogame-console accessories, and much more. They claim, "Until EFF obtained an exemption for jailbreaking, Apple relied on the DMCA to lock iPhone owners into purchasing software exclusively from Apple's own App Store."

But it's also about corporate control and the manufacturer wanting to monopolize their own system. So customers have to go back into their dealer network for servicing and thereby guarantee profits within their own company structure.

"We do lots of re-flashing (reprogramming) of stock ECUs. We also install and program aftermarket units. I write fully customized maps for fuel injection, ignition controls, and more for racebikes and other applications. So, essentially, we are computer programmers paid to write programs that make the bikes run better."

With that thought, we asked whether he views his programming as proprietary

## "Manufacturers have built legal cases to argue that consumers do not own the copyrighted software in the products they buy."

The EFF also points out that access to today's digital content is often restricted by digital locks or blocks, but the DMCA prohibits the creation or distribution of tools to defeat such blocks—even if they are needed to enable fair use and whether or not there is actual infringement of copyright itself. Fair users can be found liable for "picking the lock," whatever the merits of their fair-use defense. Copyright owners argue that these lock-breaking tools, in the hands of copyright infringers, can result in "Internet piracy."

Let's state that more clearly: If you defeat DRM locks for your personal fair use or create the tools to do so, you might be on the receiving end of a lawsuit. And that's very important in our case because virtually all motorcycle manufacturers now place locks within ECU programming. In talking with a well-known race tuner/speed shop owner (who wishes to remain anonymous), some locks are easy to defeat and some are harder to work around, but his company is in the business of unlocking such blocks in order to improve motorcycle performance, per customer directives.

He said, "Manufacturers select ECU settings that have to meet a number of criteria: allowing the bike to run to its design capacity, enhance product longevity, meet emissions criteria, and more. All that can definitely compromise a bike's performance. And the newer bikes incorporate all kinds of functions, such as traction control and electronic suspension that make the electronics suite more and more complex. So maybe the average owner shouldn't have easy access to mess with the coding.

intellectual property for single-use application to the purchaser alone. He said, "My take is that customers pay for the programming I create. It's not leased to them; they own it. So they can copy it, modify it, or do whatever they want to do to it after it leaves my hands. I'm not thrilled with the idea of someone stealing my programming ideas and giving it to other people. But once an item goes into the market you no longer have proprietary rights. It's theirs, and they can tear it apart, try to improve it, or whatever. In the real world, that's called R&D, and it's been going on for 100 years."

Of course, that's only one man's view in a sport that tends to abide by big-boy rules. The legal arena is something else again. but there was some foresight attached to establishment of the DMCA that allows for change. As part of the statute, the DMCA undergoes review every three years. During this process, it can create explicit exemptions. For example, previous reviews addressed cell phone unlocking or "jailbreaking," and regulations were rewritten to require all nationwide mobile service providers to unlock cell phones for owners when changing providers, whereas before it was illegal to unlock your own phone.

This is the world we live in. There's no returning to breaker-point ignitions and carburetors. Electronic brains in our motorcycles are here to stay, and their use will only grow more common and become more complex with every round of newmodel introductions. The jury is still out on who owns the rights to the electronic programming contained within your motorcycle's ECU. -Ken Lee



## ECU AND WARRANTY

Even if motorcycle manufacturers never decide to take legal action for copyright infringement relative to their ECU programming, there are other serious ramifications. The warranty on your brand-new bike may be declared null and void if you modify your bike, including software programming. And don't think that a dealership or company reps can't trace such changes; the ECU automatically records all alterations, so removing your mods prior to lodging a warranty claim just won't cut it, though we know from the Magnusson-Moss protections that the denying manufacturer will have to prove the modifications caused or contributed to the failure in the first place. Now you know.

## IT'S ALSO ABOUT "SMOG"

Stricter governmental regulation of motorcycle exhaust emissions is likely just around the corner. The Federal Clean Air Act, and California's Air Resources Board (CARB), have been squeezing down emissions standards for decades. California already holds a stricter standard for exhaust emissions that requires special modifications for many new-model motorcycles, and CARB is also taking a more active role in identifying and laying huge fines on motorcycle dealerships that perform modifications that increase emissions. It's very possible that one day your motorcycle's recorded ECU data could be used against you if you've modified your software to boost power at the cost of heightened emissions.

## MC GARAGE -> STREET SAVVY



## STRESS TEST

Think back on the last time you had a fleeting moment of anxiety while you were riding. I'm not talking about outright panic that happens when a car darts in front of you. I'm referring to that uneasy feeling you get when you're not 100 percent sure that things will turn out okay. This can happen when faced with potentially life-threatening situations, like a scary blind turn or a dangerous intersection with drivers just waiting to pounce. Even relatively benign situations trigger anxiety, such as making a tight U-turn—an act greatly exacerbated by attentive bystanders.

Since few of us are masters of every aspect of motorcycling, we invariably experience bouts of low-level anxiety. Here is an example: You're riding along when you notice a sign warning of a steep downhill hairpin switchback. You hate switchbacks. As you approach the turn you involuntarily tighten your grip on the handlebars and glue your eyes to the pavement immediately in front of you. Your bike is reluctant to lean into the corner, but you somehow manage to get around the bend. You decide to avoid this road in the future.

Others take a more dangerous path by denying their anxiety and carrying on as if nothing is amiss. For example: You are

trying your best to keep up with some fast friends on a curvy road. You feel stressed with the pace, but instead of slowing down you soldier on. Your anxiety goes atomic after you dive into a fast right-hander that tightens more than you expected. Your eyes widen and your breathing stops as your arms become rigid. Next thing you know you're in the oncoming lane.

Stress not only affects enjoyment and stamina but also how your motorcycle performs. It can present as simple muscle tension and narrowed focus, which can make your bike seem reluctant to turn in easily or hold a line in corners. You will have difficulty finding and following cornering lines. Your tension is preventing the bike from doing what it can do. Anxiety and tension can also cause traction-management problems, especially when the surface is wet or otherwise compromised. Being stiff makes it nearly impossible to use "soft" brake, throttle, and handlebar inputs that are key to maintaining control in low-grip situations.

Keeping anxiety and tension in check is important even under ideal conditions. Expert racers and track riders who corner at the very edge of traction are constantly monitoring handlebar tension, acutely

aware of the dangers of stress.

The best riders frequently check themselves for signs of stress and then act to regain relaxed composure so they can enjoy a safer and more gratifying ride. With anxiety out of the picture, they can also identify where the stress is coming from, whether that's a lack of confidence in their ability or trepidation about a particularly risky environment, such as a rain-slick corner or a route riddled with dangerous intersections. Whatever the source, these riders use their awareness of stress to recognize their comfort limit and then back off so that anxiety does not affect control, safety, or fun.

Anxiety and stress are very powerful tools for keeping us out of trouble if we are sensitive enough to recognize its presence and astute enough to heed its warnings. Stress can help define your personal limits and alert you to areas where you might need improvement. Pay attention to what environments, maneuvers, and situations flood your nervous system with anxiety and then acquire the knowledge and skill to become more proficient at handling those situations. Do this before you have to face a challenge that is more stressful than you can handle. In the meantime, take it slow.

# MC GARAGE ANSWERS

## LOOKING FOR MR. GOODWRENCH

I have a 2004 Yamaha FJR1300 with nearly 90,000 miles. It's been well maintained (grease, oil, coolant, plugs, pads, and tires) and ridden sanely as a daily commuter and summer sport-tourer. In my neck of southwest Georgia there were only two Yamaha motorcycle dealers, both many miles away from my home. When the FJR was ready for its 30,000-mile valve check, one of them discouraged me from having the factory-mandated service, saying it probably didn't need it. By 60,000 miles the other Yamaha shop had changed hands and brands, so I tried a local independent "motocross" shop and was told it would take a week and cost more than \$600. I passed.

I'm now nearing 90,000 miles, and the old girl is not nearly as turbine smooth as she once was. My question is how and where do I find a dealer with the expertise and desire to provide major work?

Steve Pearce / via email

In this case, it's clear you should look beyond franchised dealerships, which sometimes don't have the time, interest, or technicians with the skill or familiarity to tackle big projects on non-current platforms. However, it has to be said the FJR should be a familiar bike because it hasn't changed fundamentally since it

was introduced. Work on finding a good, solid independent shop that's willing and able to take care of you. Look for a shop that does a brisk trade in used streetbikes—those guys have pretty much seen it all and know how to take it apart and put it back together again.

It's a good idea to check in with an FJR owners group like *fjrowners.com* or



firforum.com to get recommendations on local shops. As for ignoring specified service intervals, that's just risky business. Your bike might be fine, or it might not be, and the only way to know is to inspect. Some FJRs won't need clearance adjustments by 90K, but we're betting most will. And the cost for letting this go is much higher than the inspection itself. Finally, be sure you have your FJR's throttle bodies synced; that'll help get it back to its smooth, old self.

-Jerry Smith

#### YOUR TURN!

We know you have a question you're just dying to ask, so send it to us already at: mcmail@bonniercorp.com





# MC GARAGE -> RETAIL CONFIDENTIAL

# WHAT'S HOT? WHAT'S NOT?

In this business it's easy to see when a manufacturer has a hit on its hands. Certain models ooze performance and good looks while getting a lot of attention in both the press and on the sales floor. We just know we'll move every unit we get our hands on. But for every "hot" bike, there are two more that are not so hot. This is what I see as I walk the showroom floor—and bear in mind that we're a Harley, Kawasaki, and Suzuki dealer, so I can't comment on other brands.

#### THE HOT BIKES:

Harley-Davidson Street Glide It has remained one of The Motor Company's strongest sellers. With the recent Rushmore enhancements, popularity of the FLHX remains high. A great platform for both touring and customization, it would be hard to dispute the staying power of this model. We often sell every one we get in. This, in turn, has kept its trade-in and resale values in the upper range. A close second is the Road Glide Special.

2015 Kawasaki Versys 650 When the Versys 650 rolled out in 2008 it was a miracle to sell one. A fine motorcycle for sure (2008 Motorcycle of the Year by Motorcyclist), it was often misunderstood and an unattractive addition to the sales floor. Owners appreciated it for being a versatile motorcycle with good handling and enough performance to keep you interested. With improvements in both function and styling, the 2015 Versys 650 has evolved into a popular and beautiful bike that has been in high demand. Wait. Did I say beautiful?

Kawasaki KLR650 Affordable, reliable, and ready for just about anything, the KLR650 has proven itself to be just as dependable a mover on the showroom floor. For a motorcycle that has resisted, even thwarted, any type of technological advancements over the years, it has remained popular with the dual-sport crowd. It has all the ingredients we need to keep bikes moving out the door: affordable price, simplicity, curb appeal, and functionality.

Oh, and a loyal following doesn't hurt either. What more could you ask for when it comes to selling motorcycles?

#### **NOT SO HOT THESE DAYS:**

Suzuki Hayabusa There was a time when this bike ruled the showroom floor. Always in high demand with nary a leftover. The Hayabusa has in recent years become somewhat of a museum piece. Suzuki was able to maintain its stronghold in this category even as Kawasaki released the ZX-14R in 2006, creating a battle for consumers' dollars. We had many spirited debates about performance and brand loyalty with customers when comparing the two, but Suzuki kept winning the sales war. Since then, sales have tapered on the 'Busa and the ZX-14R in spite of both being very fine machines for the money.

Harley-Davidson Street 500/750 As much as The Motor Company relies on tradition, any variation from the status quo meets buyer resistance. The Street 500 and 750 are designed more for a new generation of Harley-Davidson customers who still want the brand but with a more modern liquid-cooled machine. Priced slightly under the more familiar 883 Sportster, the Street has had a hard time moving out from the shadow of tradition and getting into one of the coveted positions in Harley's lineup.

**Suzuki SFV650** I actually like this motorcycle, but it goes largely overlooked in the long line of bikes on the floor. It's a fun bike to ride, and the price is right, but there isn't a line of customers looking to buy it. Yes, it's a popularity contest, and the SFV650 won't win it.

Of course these observations are purely from a sales standpoint. It is really difficult these days to find a truly bad motorcycle, but there are many factors in determining whether a bike will sell well or not. Popularity, price, insurance costs, and even your geographical location can determine what kind of motorcycles will be hot or not. And remember that these slow-selling bikes might just be a great deal for you near the end of the sales year. Two sides to every coin.

Jeff Maddox is the sales manager for a multiline dealership in the Midwest. Questions for him? Email us at mcmail@bonniercorp.com.





With the caliper in place, loosen the pad retention hardware. Then unbolt the caliper and remove the old brake pads, noting their orientation and the placement of any spring plates or spacers.



Remove the reservoir cap and carefully press the pistons back into the caliper body by hand. The reservoir will fill as you press in the pistons, so wick off excess fluid with a paper towel or draw it off with a syringe so it doesn't overflow.



Install the new pads in the caliper then reattach the caliper and torque all fasteners according to the owner's or service manual. Pump the brake lever and check the brake fluid level. Now would be a great time to bleed your brakes, but otherwise reinstall the reservoir cap.



If the caliper and pistons are grimy, clean them with a soft toothbrush and soapy water. Allow the parts to air dry and then check the pistons for rust or pitting, and inspect the seals for damage.



With the caliper still off, dress the rotor(s) with a red Scotch-Brite pad and brake cleaner followed by a clean rag. The idea here is to remove any grime and glazing so the new pads have a clean surface to bed into. Don't skip this step!



Bed your new pads in with several dozen stops from successively higher speeds, and remember that it might be several hundred miles before your new pads are completely mated to the disc(s).

# MC GARAGE ONLY TIME



ell, it's official: Harley has requested that the Road Glide Special be returned to the warm embrace of the mother ship. Also officially—and truthfully—I'll be sad to see Big Blue go.

Right from the first 1,000-mile shakedown cruise, the Glide has been nothing but solid and smooth. After close to a year of steady riding (some of it pretty harsh), the bike has been nearly flawless, with a strong, terrifically torquey motor, predictable steering, and handling that belies its 850-pound mass. Turns out it suited my riding style pretty well too.

The Twin Cam 103 mill has proven itself as one of my favorite cruiser engines, thanks to its good manners, reliability, and broad powerband. The thing has never been happy in stop-and-go traffic, and engine heat can be an issue on warm days, but those aren't deal breakers for me. Fueling has been flawless, and the Reflex ABS system has got me out of many a rain-slicked road jam. I was also skeptical of the Boom! Box 6.5GT on the Special, but the infotainment system has proven to be an unbelievably intuitive, rider-friendly electronic package that's given me incredible control over my music, navigation, and communication without being too intrusive. Color me converted.

Despite the service notices (first a clutch master cylinder and then a

saddlebag connector), the Glide has seen nothing but regular maintenance at 5,000mile intervals. Do yourself a favor and perform the oil changes yourself; the drain plug and oil filter are easily accessible, and the steps are straightforward. You'll save yourself some serious coin over having the dealership do it, though you miss the opportunity to have the techs look for other maladies and, depending on your local dealer, a fine cup of Joe.

Although the stock Glide has decent cornering clearance, its short-travel suspension was just so-so out of the box, and the aftermarket Premium Ride Touring shocks we installed made a huge difference. The Nightstick Mufflers I added also added some better exhaust thump but not much performance; there are easier and cheaper ways to wring more horsepower out of this bad boy. If it were my money, I'm not sure I'd pay the \$2,300 premium for the Special trim, but other than that, I've had no complaints with the stock setup, other than some nitpicks.

Nitpick one: The screen glare from the Boom! Box audio system dash screen can be a bitch at high noon, and I've yet to see an aftermarket answer for the distraction.

Nitpick two: I also found the mini shield less than protective from wind blasts at speed, so I scored a 12-inch Wind Splitter unit from Harley's P&A catalog (\$195;



LA. Verdict? Super-easy install, with good quality plastic that complements the fairing shape well (though the stocker is more aesthetically pleasing, keeping the Glide's lines low, where they belong). The Wind Splitter slightly improved wind protection by directing errant gusts further up and over my head (not at chest level anymore), but mostly it improved the sound of the onboard audio system by lessening wind noise.

All that said, you'd be hard-pressed to find a more well-appointed (but unfussy), road-worthy, and, yes, stylish, custom American V-twin on the road today. With its frame-mount fairing, tons of torque, and easy ergos, there's a reason the Road Glide is consistently the bike Harley owners ride farthest each year.



after a cross-country trip of nearly 4,000 miles I'd be willing to sign up for several more months aboard the red beast. Part of that "something" is probably just horse-power corruption, since the XR's gutty four makes incredible power along with an enticing soundtrack. This is a revelation for me, a stalwart fan of twins and triples.

Life for the XR has been busy since I brought it back from the east coast ("The Road As Therapy," October 2015, MC). At around 4,300 miles, young guns Ari and Zack seized it and slapped on a set of Dunlop's excellent Sportmax Q3 supersport tires (\$433 MSRP/set; dunlopmotorcycle.com) in preparation for a video segment with Ducati's Multistrada 1200 S. The stock Bridgestone T30 Evos were still in good shape, but the lads wanted something stickier for the track. At Laguna Seca, with everything turned up to 11 (read: Dynamic Pro mode), the XR kicked some closed-course ass. Ari and Zack were surprised by the BMW's competence and speed. "We weren't passed by anyone," Zack later told me, "and there were some pretty fast bikes there."

As part of the video shoot, the lads took the XR off road, slamming down rocky trails, jumping it, sliding it like a pair of just-post-pubescent Jay Springsteens. Result? An excellent comparison video (see the video section of *motorcyclistonline. com*), plus sundry rock chips and nicks, and a front rim with a number of serious dings. Not serious enough to make me park the bike but enough to feel as an imbalance at speed. BMW insists, and now I have to concur, that the XR is only styled like an Adventure bike; it's really, truly, no joke meant to stay on the pavement. A new front rim is coming and, thankfully, BMW's largesse will keep me from deducting the nearly \$1,100 hoop from the young jackwagons' paychecks.

Wrapped around those hoops, Dunlop's Q3s did a magnificent job at the track and were equally terrific back on the road. But the combination of the all-day track event and other bashing about had the rear just past the wear bars at 2,500 miles. It's probably unreasonable to expect much more life from such a sticky, compliant tire, one that made the BMW steer even more telepathically than stock and not just tolerate but seem to encourage deep trail braking to every apex.

I overshot the 6,000-mile service by a little bit, nagged by the service reminder on the dash. It takes over the little *achtung!* warning light shining at you until you

relent. I could probably live with that, but the low-fuel warning *also* uses that light, so you ride around thinking you're always low on gas or, worse, just assume everything's fine because that light's been on for awhile now. Long Beach BMW took the XR in at 8 a.m. and had it ready by 5 p.m., and charged \$99.05 in parts and \$171.60 in labor to change the oil, both oil and air filters, and commit a general inspection. The next inspection, at 12,000 miles, is more of the same, but the 18,000-mile maintenance calls for a valve-clearance check as well as replacement of the spark plugs and fork oil.

At the rate the XR is already gaining miles, that big service might be more than an abstraction. We'll just have to see...

My XR came with BMW's accessory seat, which is still thin but fairly comfortable until about the 500th mile. Alas it's not heated.

# MC GARAGE ON! TIME



s a video producer for Motorcyclist, my days are usually spent behind a computer screen or a camera, drowning my deadline sorrows in a pool of Red Bull and doughnuts. But, when the occasion calls, I'm also lucky enough to ride some of the latest and greatest motorcycles the industry has to offer. Whether it was filming the S1000XR-versus-Multistrada shootout from aboard a KTM 1290 Super Adventure, or getting to ride the newest crop of European roadsters on last year's Edelweiss tour, I'm often spoiled with my choices for two-wheeled transportation. And yet, even after all those miles and all those bikes, it wasn't until I swung a leg over Kawasaki's 2015 Versys 650 that I truly found my cycle soul mate.

I do have to admit, with its modest 649cc motor and a (relatively) big-boned figure weighing in at 476 pounds, it was not exactly love at first sight. Not that the newly restyled bike is ugly, by any means, but after spending a fair amount of time being disappointed with the performance and ergos of the Ninja 650, I really didn't expect much from the platform-sharing Versys. How wrong I was. Sporting a long

list of updates for 2015, including revised motor mounts and improved ergos, the fresh-faced Versys is as lively as it is smooth and comfortable. While the Nissin brakes and Showa suspension are nothing to write home about, they perform remarkably well when you consider the entry price of \$7,999. In fact, ABS is standard on this fine machine, and the suspension does at least offer adjustability for preload and rebound damping.

I should also point out that I'll be riding the LT model, which sees a price bump up to \$8,699 but comes equipped with sturdy hand guards and the brilliant, Givi-derived, 28-liter saddlebags. Seriously, these bags are phenomenal. You can fit a full-size helmet (not to mention plenty of camera gear) in either bag, and the opening/closing mechanism is basically idiot-proof. When you consider that the similarly spec'd V-Strom 650 Adventure comes in at \$10,049, springing for the Versys LT is a no-brainer.

It's no secret around our office how much I love this bike, and I won't pretend to hide my affections here. But that doesn't mean I wouldn't improve a couple of areas on the sweet, beautiful Versys. Top luggage, a gear-position indicator, some form of cruise control, and, most importantly, a centerstand to ease maintenance, are all on the intended mod list. Beyond that, I'll probably enlist the help of the *Motorcyclist* team to dial the bike in with some camera mounts and storage options that make this thing the ultimate videographer dream machine. In any case, with its 5.5-gallon tank and no shortage of filming assignments, expect plenty of miles and mods to come.



#### KTM RC390

WRIST: Ari Henning MSRP (2015): \$5,499 MILES: 1.890

MPG: 54

морs: K&N oil filter, Motorex oil,

Hot Cams valve shims

ve been hard on the RC390 and neglectful too. We got the bike with just 63 miles on the odometer and immediately ran it wide open on the dyno and then took it to the track for our 2015 Small Sportbike Shootout and *On Two Wheels* video. We blew by the initial 620-mile break-in service during testing, and as you can see in the spec box above, the bike has nearly 2,000 miles on it now.

That initial service—particularly checking the valve clearances—is important in ensuring a bike's performance and longevity. I would never recommend ignoring the first service, and I'm not proud of the fact that I've put it off for this long. Sorry, KTM. I was just having too much fun riding the bike to work on it! I did change the oil at about 1,000 miles, however, slipping a K&N filter (\$9; knfilters.com) into the crankcase and pouring in the recommended Motorex synthetic oil (\$20/liter; motorexusa.com) prior to Editor-in-Chief Marc Cook taking the bike to a trackday.

Getting to the valves requires removing the seat, tank cover, side fairings, battery, and fuel tank. I also disconnected the battery lead from the starter solenoid so I could flop the whole fuse box/battery tray off to the left side of the bike. There's precious little room to work within the RC's engine compartment, so I spent a few minutes zip-tying wires out of the way to give myself a clearer view of the work area. This is all pretty standard stuff—on most bikes the hardest part of the procedure is just getting to the valves.

With the valve cover removed and the engine at top-dead center, I tried to slip my feeler gauge in between the follower and the shim on the intake side and immediately became frustrated. The cylinder head is tall, and the gap you're attempting to check is an inch down and completely out of sight below the cam lobe. I hadn't wanted to remove the radiator, but I was having a heck of a time accessing the exhaust valves with it in place, so out came the coolant and off came the cooling array. That made things much better. So did having the bike up on a lift; I helped my buddy check the valves on his RC with the bike at ground level, and the job was a lot more difficult.





Hot Cams shim kits include three shims each in thicknesses from 1.85mm–3.25mm in 0.05mm increments. Ordering the complete kit insures you have any size you might need, and it's a good value too. The \$75 kit contains a total of 84 shims, which works out to about \$0.90 per shim.

Putting a 45-degree bend in your gauge makes checking the left-side valves fairly easy, but to check the right-side valves you have to slip the gauge through the gap between the cam holder and the head. And on the right exhaust valve you need to slide the decompression device over so it doesn't interfere with your reading. If you're unfamiliar with how to use feeler gauges or how much drag is the right amount, check out the video on the topic in the MC Garage section of motorcyclistonline.com.

KTM calls for a 0.003–0.005-inch gap on the intakes and a 0.005–0.007-inch gap on the exhausts. On my RC the left exhaust was on the snug side of spec (0.005 inch), and the other three valves were all tighter than spec. (The right exhaust was at 0.004, and the intakes were both at 0.003.)

Since two of my coworkers have personal KTMs that use the same 10mm shims as the RC (and because I may put performance cams in the bike at some point), I went ahead and ordered a full shim kit from Hot Cams (\$80; hotcamsinc.com) rather than ordering individual pieces from KTM. The RC uses shim kit HCSHIM31 and comes with three shims each in thicknesses from 1.85mm on up to 3.25mm. The stock shims were all in the 2.40–2.50mm range, so the Hot Cams

kit will likely cover any conceivable clearance a 390 owner might encounter.

Finding valves out of spec might make your heart sink, but having come this far swapping the shims isn't that much more work. You need to remove the camchain tensioner, spark-plug tunnel (it's a slip fit with O-rings—wiggle it, and it will eventually come free), cam holders, and cams, and then snatch the shims up with a magnet. I measured the shims and replaced them with thinner discs so the clearances are all at the loose end of the spec. I figure since the valves tightened up during that first 2,000 miles, they might continue to do so.

Overall the procedure was more trying than I'd expected, but I think I've been spoiled by the ease with which I'm able to check an dadjust the vavles on my CBR300R racebike. Compared to the Honda, the KTM is half again more difficult to work on, and anyone looking to tackle the procedure themselves should set aside a full day for the project. And if you're on the fence about checking the valves yourself, consider that I've checked the valves on lots of bikes and found this particular machine pretty tricky to work on. The RC is a great bike for beginners in terms of size, price, and performance, but the same doesn't apply for some of its maintenance procedures.

Here's what the worksite looks like. The yellow arrows indicate the best angle of attack for checking the valve clearances.



# MC GARAGE ONLY TIME



What a difference a year makes! Right around this time last year, the Scout was unveiled at Sturgis, and new owners were mod-hungry from the start. But the aftermarket well was dry for the first few months, and the only source for upgrades was the Indian accessories catalog. I was genuinely concerned that finding aftermarket stuff for a long-term project might be a challenge. Pretty silly, huh?

This time, a suspension upgrade. "The geometry is dialed," Editor At Large Aaron Frank said in his *First Ride* review. "The springs, however, are soft at both ends, suggesting a beginner-biased setup." And after 6,000-plus miles on my long-term bike, that assessment has proved to be spot on. With the limited travel of its laydown geometry and soft springs, the Scout rear suspension would sometimes bottom in a sharp dip at speeds above 60 mph.

K-Tech Suspension (*orientexpress.com*) is well-established in roadracing and motocross suspension components, and the company has recently started expanding into the American V-twin market with a

fully adjustable Tracker fork cartridge kit (\$895), replacement fork springs (\$124), and nitrogen gas-charged, springless Bullit rear shocks (\$795) for the Indian Scout.

To learn more about the K-Tech components and to have them installed on the Scout, I took a ride out to Motorcycle Service Centers (*motorcycleservicecenters.com*) in Camarillo, California. MSC is K-Tech's only authorized service and tuning center on the West Coast. They can install the Tracker fork cartridges with same-day ride-in, ride-out service (by appointment), or you can ship the components.

MSC owner Will Kenefick installed the Tracker cartridge kit and K-Tech replacement springs, pointing out that the kit requires a permanent fork modification so there's no going back to stock. K-Tech strongly recommends that Tracker buyers have the kit installed by one of their service centers (\$300), and while Will made the installation look simple, there were a couple of steps that would challenge even a skilled DIY mechanic.

On the ride home I immediately noticed an improvement in the Scout's ability to glide over rough patches without transmitting the harsh jolts like before. The Tracker kit adds 30 detents of adjustability on each fork leg (compression on one side and rebound on the other). I kept the settings at 15 clicks, which is what K-Tech recommends until you acclimate to the changes.

If you've done the math, \$2,114 for the Tracker kit, springs, Bullit shocks, and installation isn't a low-budget upgrade. If I were coming out of pocket, I would start off with the Bullit shocks first. Not only are they an easy bolt-on, but they're designed specifically for stroke-limited applications like the Scout and would solve my issue with (and pain from) the sudden bottoming of the soft stock shock. Only if I planned to keep the Scout as a daily rider for many years would I dig deeper to buy the Tracker cartridges and springs. But if the Scout were a weekend cruiser, I would most likely add the Bullits and call it a day.

### THE ROAD TESTER SAYS..

I asked Road Test Editor Ari Henning to give the Scout a before-and-after evaluation of the K-Tech upgrade, and this is what he had to say:



ARI HENNING ROAD TEST EDITOR AGE: 30 HEIGHT: 5'10" WEIGHT: 175 lb. INSEAM: 33 in.

BEFORE: I think the stock setup is actually quite good for a cruiser, definitely above average. A little soft in terms of spring rates and damping but not sloppy loose and a very compliant straight-line ride, except for over hardedged stuff where it felt harsh. It wallows a bit in fast sweepers (freeway entrance/exit ramps) and bounces after hitting bigger bumps—all signs of limited/quick rebound damping.

AFTER: The new setup still feels appropriately compliant, and the high-speed compression is much improved. The fork is not nearly as harsh over hard-edged stuff, which really helps with the ride quality. There's a bit more

really helps with the ride quality. There's a bit more rebound damping (especially in the shocks), so the bike doesn't pogo after hitting a larger bump/dip, and the chassis stays calmer while cornering.



Installing the cartridge kit requires completely disassembling the fork and making some internal modifications. It's a fairly big project, which makes the \$300 installation cost seem like money well spent.



Not only did the Bullit shocks absorb high-speed bumps that would've shocked my spine, but the blacked-out springless design just looks good.







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# MC GARAGE ONLY TIME



ther than racking up miles on the R1 I turned my eye to tinkering with some obvious sportbike mods for the Motorcycle of the Year. First up, that gargantuan hunk of plastic that dangles hideously off the back of R1's sleek glutes, holding the license plate and blinkers. It's no fault of Yamaha's, of course; all bikes are mandated by The Man to have comprehensive fenders. In general it's a good idea, but it's ugly, and as long as we're in the midst of a multi-year drought here in California I figure I'll take advantage of not having to worry about road spray.

морs: Graves fender eliminator

As I learned removing the passenger pegs (and then reinstalling them when the lady friend informed me she wanted to try to R1's pillion), going under the seat means dealing with a bunch of fasteners and layered pieces to get to the actual electronics and mounting hardware for the fender. After digging past a few covers and the seat-release mechanism, an easily accessible plug and three bolts released the entire bracket/fender in one piece.

For this first attempt at tidving up the R1's tail I chose the Fender Eliminator Kit from Graves Motorsport (gravesport. com; \$150). Transferring the blinkers from

the stock unit to the aftermarket piece required mastering the puzzle securing the blinker stalks to the main unit. A plastic ring holds the blinker's rubber base in position and needs to be moved aside, at which point the base needs to be pinched and forced out of the grommet for removal (I hit the rubber with a heat gun to soften it). Placing the blinkers into the Graves assembly required the reverse of the same technique, and then the new assembly

bolted guickly back in place. (The photo above shows just how much smaller the aftermarket piece is, sitting to the left of the removed blinkers and the stock piece.)

Because this is likely to be such a common modification I will likely experiment with a couple different options, but the final look from this Graves unit is clean, and it's a big improvement in aesthetics. If it ever rains again here in SoCal we'll see just how messy the R1's caboose gets.



#### KTM 1290 Super Adventure

WRIST: Aaron Frank MSRP (2015): \$20,499

MILES: 9,177 MPG: 38

MODS: Not this month

■nlike my long-term BMW R1200GS, which I rode home from California to Wisconsin myself, this Super Adventure was hand-delivered by FoMC (friend-of-Motorcyclist) Erik Stephens, who took the bike on a rambling, week-long road trip around the American West before depositing the big trailie at my garage door. Stephens, who owns a liquid-cooled R1200GS—LC for short—and has ridden nearly every other ADV bike on the market courtesy of his day job as owner of Twisted Throttle, knows a thing or two about what a proper adventure bike needs to do. Here are some of his thoughts after spending a little over 3,000 miles in the Super Adventure's

two-level-heated saddle.

"I was truly impressed with the comfort and accessibility of the 1290 Super Adventure. I usually expect KTMs to be part terrifying and part thrilling joyride. This bike can thrill you if you want it to, but it's equally well behaved if you'd rather settle into long-distance cruising mode. The bike has awesome power everywhere in the rev range, and it handles well everywhere on pavement.

"I'm 6-foot-2, with a 33-inch inseam and long arms, and this is the first KTM I've ever sat on with a truly comfy long-distance seat; the 1190 Adventure doesn't compare. The only real ergo issue for me was the windscreen—it felt like it was made for a shorter rider. Even adjusted to the highest position, I found myself hunching at highway speeds." The screen came from Cook mounted to the lower of the two brackets; that might have helped.

"The electronic cruise control was awesome. It did become a little too much of a habit though. After a full day on the interstate, I automatically set the cruise control at 83 mph first thing in the morning on a secondary road in South Dakota and promptly got a ticket. It's almost too easy to turn my brain off when cruise is on!

"One gadget I was less enamored with was the lean angle-activated turning lights—these seemed more gee-whiz than functional. They seemed to point too much toward the edge of the road, while my eyes were still focusing nearer the centerline. Perhaps they work better at more extreme



lean angles than I achieved? I'd rather have an override button to turn these into daytime running lights or replace them with auxiliary headlights.

"Overall, though, I really loved the 1290 Super Adventure. There's no other 1200class bike that compares to the R1200GS LC for me, and I especially appreciated the 1,200cc power without the cylinder heads sending heat into my tootsies and getting in the way during technical riding. But if I had to choose between this or my R1200GS LC, what would I do? That's a tough call. Which one can I have for less money?"



# MC GARAGE -> SMART MONEY



## 2001–2015 TRIUMPH BONNEVILLE

You might have heard the putdowns of old Triumph twins, such as, "For every hour on the road, a day in the shop." Today it seems only card-carrying members of the flannel-cap brigade love and cherish those old bikes enough to keep them running. But you don't have to be a master mechanic to experience the virtues of the classic British vertical twin. When Triumph resurrected the Bonneville name from the dust of moto-history in 2001, the machine bearing the name became one of the best sellers in the lineup.

A 790cc engine with twin cams and four valves per cylinder replaced the original Bonnie's pushrod lump. A counterbalancer vanquished the 360-degree crank's vibes, mellowing them to silky smoothness. A unit crankcase held a wet clutch and a five-speed transmission. In 2007 the displacement was bumped to 865cc, and in 2009 US-spec Bonnies got fuel injection with the throttle bodies cleverly disguised as carburetors.

The chassis was a model of simplicity—mild steel tubes bent in a time-honored configuration, twin rear shocks with adjustable spring preload, single-disc brakes front and rear, and a non-adjustable fork. The seat and tank evoked the classic lines of Bonnevilles gone by.

There have been several incarnations of the basic

Bonneville, but the basic goodness shines through all of them. The engines are smooth, with flat torque curves if not stunning power. The stylish but thinly padded seats get mixed reviews, and many riders wish the tanks were larger. Still, the Bonneville was likely the launching pad of the growing hipster custom movement, so there's no denying its classic looks appeal to young riders as well as old duffers.

Overall the modern Bonneville is a paragon of reliability. The understressed

engine churns along happily, asking little more than an oiland-filter change on schedule, and the cams lift out easily for valve adjustments. (A chain runs up between the cylinders to a central gear that drives each cam.) Forget spotty Lucas electrics—the Bonnie's sparks stay inside the wires, where they belong. Some early spoke-wheel models had problems with the spokes loosening, but the issue hardly ranked as an epidemic. Carbureted models suffered some tuning and running glitches and seemed more susceptible to dirty gas than FI versions.

As a platform for customization and personalization, the Bonnie is hard to beat, with a huge aftermarket cranking out go-fast bits and faux Ace Café clobber for both bike and rider. Poorly done or ill-advised mods are about the only thing you need to beware of when



Harkening back to the era of Triumph desert sleds raising dust from Barstow to Vegas, the Scrambler uses the 270-degree crankshaft from the America and Speedmaster for better low-end torque. The high handlebar and crossover exhaust spotlight the bike's off-road intent, but let's be real: This is a dirt-styled street machine.



#### 2004-2015 TRIUMPH THRUXTON

Named after a racetrack where Triumph swept the podium at a 500-mile endurance race in 1969, the Thruxton pays homage to pukka café racers with clip-ons, rearsets, a flyscreen, a race-styled seat, and an aggressive riding position. With its mildly tuned engine, the emphasis is on style rather than performance.



#### 2002-2015 TRIUMPH BONNEVILLE AMERICA

The America might just be Triumph's best entry-level bike, complete with a low seat (28 inches), forward-set foot controls, and cruiser looks. The engine, with its 270-degree crankshaft, puts out good low-end torque and has more than enough poke up top to keep up with freeway traffic. The single front disc could use a partner, though, and all but the rawest rookies will wish for more power.

looking at used bikes. Watch out for the usual suspects—oil leaks, dirty or kinked drive chains, hard starting, oil smoke from the mufflers. Many bikes go well past the recommended valve-clearance intervals with no issues, but ask if they've been checked. Oil consumption isn't the modern Bonnie's weakness, unlike its ancestors, so a used one that smokes or needs constant topping off is suspect. - Jerry Smith

CHFFRS Classic looks. low-maintenance, the best of British twins without the

# heartburn.

Underpowered, magnet for talkative old guys who had one "back in the day."

# FOR

Oil consumption, loose spokes, envious hipsters.

## VERDICT

Stylish, functional, fun. Fitting inheritor of the Bonneville legend.

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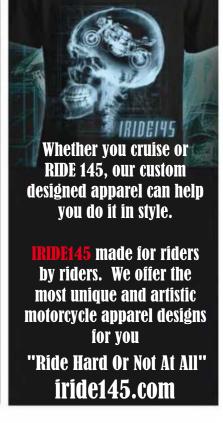
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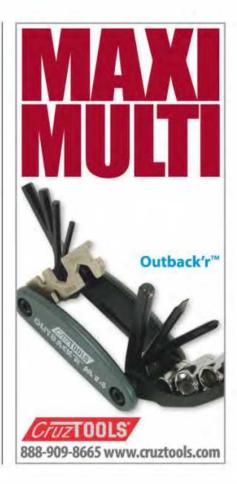
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# ON BEING PASSED

don't find myself too often bored on a motorcycle. But 35 mph on the Blue Ridge Parkway is mind numbing when hemmed in by a mixed group of cruisers who had already passed two scenic pull-overs and weren't showing signs of visiting a third just ahead. Ten minutes of that put me in mind of a movie I saw as a kid, a W.C. Fields piece called If I Had a Million. A dying millionaire picks eight names from the phone directory as lucky recipients of his fortune. Fields' character, Rollo La Rue, uses his windfall to purchase a fleet of cars to run roadhogging drivers off the highways.

It's an amusing fantasy, but it ought to remain just that. Still, anyone who rides or drives is confronted with the ethics, manners, and technique of passing another vehicle and, just as important, being passed. That last bit is something not many of us think about much, and if we're the ones always doing the passing, we probably don't think about it all.

It's not uncommon for motorcyclists and occasionally drivers to react angrily when passed, as though their self worth is defined by recognition as the sole pace setter for that strip of pavement. The most hostile example of this happened to me five years ago, also on the BRP. We were

passing a group of four riders. The third raised a lusty middle finger; the second swerved into the passing lane in the motorcycle equivalent of a kick return block. We got by anyway, flashed a friendly wave—undeserved—and vanished two corners later. I can't explain that kind of hostility, so I won't even try. Thankfully, it's rare.

Less rare is a troubling reaction that we see often when riding the twisty bits in the Carolinas and Tennessee. It's the deer-inheadlights look you get when overtaking a rider whose countenance clearly asks: "Where the hell did *you* come from?" Since a return glance can't convey the answer, maybe Aerostich needs to make one of those flip-down license plate messages that says, "I've been in your mirror for 5 miles."

And therein lies the problem. When the terrain gets interesting and the pavement snaky, some riders forget they have mirrors. Both eyes go into gimbal lock full forward. Then when they finally do spot a bike behind signaling the need for speed, a low-grade panic sets in. But it shouldn't. On the most serpentine of roads, even at a sporting pace, there's always a second or two to steal a glance at the mirrors. The more glances, the better to see traffic in the distance closing the gap and the more time to pick a spot to be passed gracefully and on your own terms.

I ride Deals Gap about three times a year and at a brisk pace. But there are riders who sail through faster than I do. My method for giving way is to slow slightly, drift into the right third of the pavement, and wave the rider by. Giving up just a third of the lane is probably enough for a rider skilled enough for a quick pace. But if the extra foot or two is there, why not use it? A full pull-over and stop will do, too, but I think it's overkill in most situations, even if you're being overtaken by a group.

It's my observation that there are regional—and national—variations in passee behavior. In Italy I noticed that drivers and motorcyclists have raised the courtesy pull aside to a high art. It's more an expectation than a rare gesture. Drivers in the California canyons appear similarly attuned to what's behind them, which I think is a function of the state's motorcycle culture, it being the land of the legal lane-split, after all.

You can't do much to change the behavior of others. Aggressive brights flashing might simply steel the resolve of someone's intent on defending the lane. But a habit we should all maintain, regardless of the road type, is mirror vigilance. You never know when Rollo La Rue is reeling you in.

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